THE ASSESSMENT OF COGNITIVE DISTORTIONS IN CHILDREN AND ADOLESCENTS WITH CONDUCT DISORDER

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Declaration

"This thesis has been composed by myself and the work contained herein is my own."

Signed.... ..... Audrey Susan Young

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ABSTRACT

Conduct disorder in children often represents a major problem for families, professionals in a number of agencies, society in general and indeed the child as it will impair their development as a functioning member of society. In recent years, studies have focused on the involvement of socio-cognitive factors in the maintenance of conduct disorder. This present study drew on three main areas of research in this field. Firstly, Dodge's (1986) model which described a sequence of steps involved in information-processing in social interactions. Secondly, Felner's et al (1990) model which incorporates a number of skills including cognitive abilities under the umbrella of social competence. Finally and more specifically, the research on the cognitions of children who display psychopathology was used, especially focusing on the distinctions made between deficits and distortions (thinking errors) in information processing.

The aim of this study was to examine thinking errors that may be present in children with conduct disorder in comparison with a control group. It was hypothesised that conduct disordered children would produce thoughts that represented certain thinking errors in information processing that subsequently may be a potential factor in the maintenance of the disorder. The main measure which was specifically developed, was an attempt to access children's thoughts in response to certain situations which they watched enacted on video. Felner's model proposed a relationship between cognitive abilities and positive mental health so a measure of self-esteem was included. A measure of self-efficacy for committing or inhibiting aggressive acts was also used to consider the relationship between this factor, thinking errors and self-esteem. The validity of the assessment measure was also discussed and the implication of the results for the treatment of conduct disorder.

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INTRODUCTION

1 - INTRODUCTION TO CONDUCT DISORDER

1.1 DEFINING CONDUCT DISORDER

The term "conduct disorder" is one which is multi-faceted and difficult to describe in a concise way. It includes behaviours which occur in most, if not all, children at least occasionally, for example, defiance and disobedience to authority figures. The term also encompasses behaviours which are of a more serious nature, for example, stealing, bullying, fire-setting etc. An early study by Peterson (1961) described conduct disorder as a cluster of problems including non-compliance, restlessness, irresponsibility, boisterousness and aggression. A more recent definition has come from Herbert (1987) which states that conduct disorder refers to "a variety of disruptive behaviours of childhood and adolescence which give rise to social disapproval because of their antisocial qualities." (p 3)

Antisocial behaviours are those which violate certain social rules and, as noted earlier, some incidences of these are likely to be part of a child's normal development. A "problem" with behaviour will only occur if it is deviant from social norms and because of its frequency, intensity, duration and developmental appropriateness. It may also be seen to have consequences for the child, (e.g., inability to learn particular skills required for later development), consequences for others around about them and for society as well. Conduct disorder can be said to represent a well-established pattern of

antisocial behaviour, with much of these behaviours occurring frequently and impairing the child's general functioning in society.

1.2 THE CLASSIFICATION OF CONDUCT DISORDER

There have been various attempts over the years to classify emotional and behavioural disturbances that have been observed to occur in children. Early measures were problematic as they often made underlying assumptions about the causes of the disturbance. However, more recent developments have used information from epidemiological studies and clinical practice in order to produce more empirical measures. Analyses of the various measures undertaken by Achenbach and Edelbrock (1978) revealed two most frequent dimensions - emotional disorders and conduct disorders.

Formal Classification Systems :-

In the U.K the International Classification of Diseases is most commonly used within clinical practice. Within the description of conduct disorder, a differentiation is made between two types - socialised and unsocialised. Although in the most recent version, ICD-10, a greater uniformity of symptoms occurs between the two subtypes with the main difference being whether or not normal peer relationships are maintained. In ICD-10 conduct disorder represents a more serious and enduring disorder than previous classifications (Robins, 1991). Behaviours such as running away, firesetting, stealing, sexual coercion and cruelty to animals and/or people have been added. A diagnosis

requires that at least two of the symptoms occur and to have been present for at least six months.

The American classification system, the Diagnostic and Statistical Manual (American Psychiatric Association) has in earlier versions differentiated four disorders - undersocialised aggressive, undersocialised non-aggressive, socialised aggressive and socialised non-aggressive.

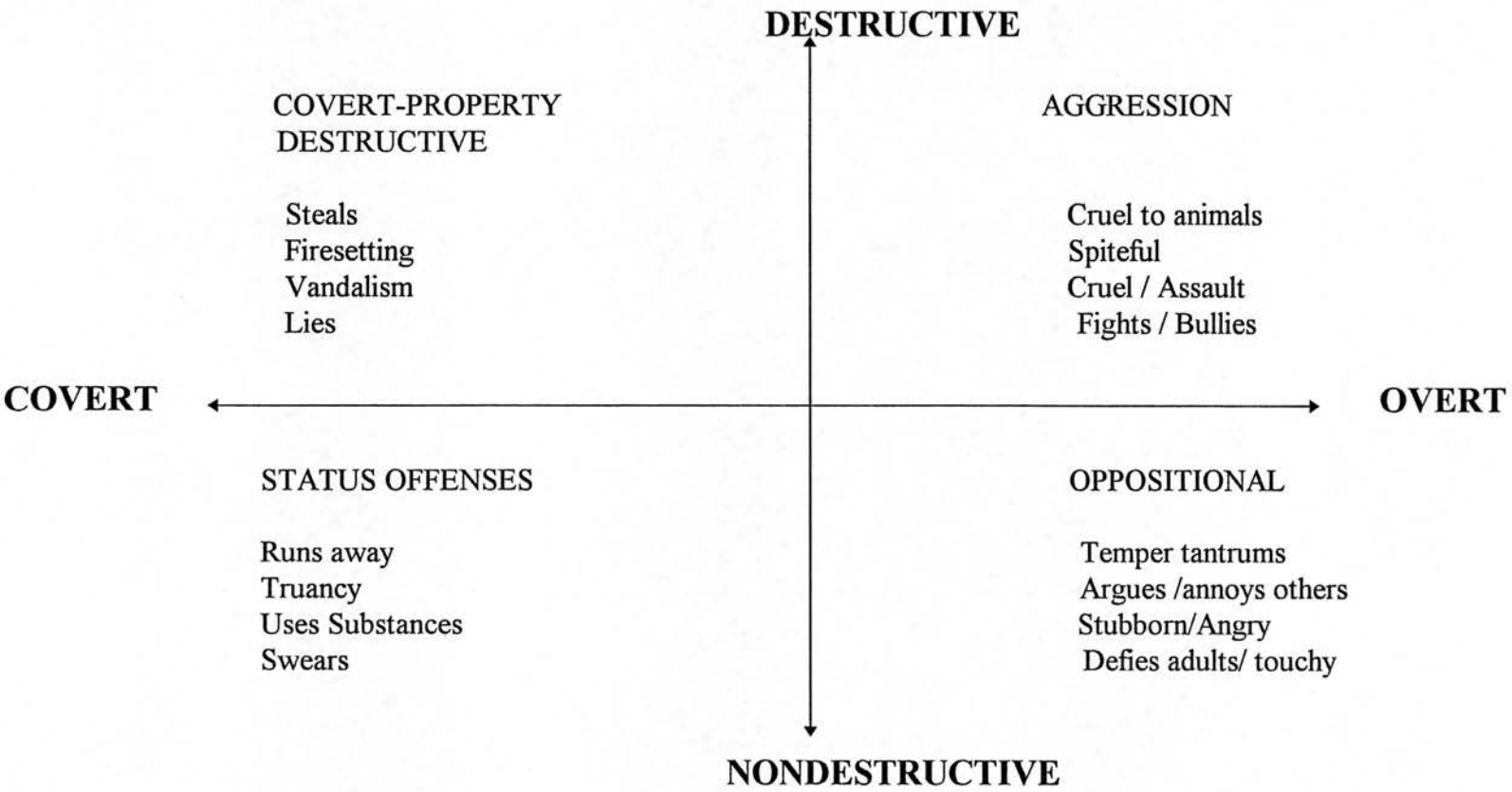
In recent editions these have become a single disorder with three subtypes - group, solitary aggressive and undifferentiated (Robins, 1991).

Neither of the two classification systems provide much guidance as to the ages at which specific behaviours should be considered pathological nor do they specify a minimum age a which the diagnosis is valid. There is increased although still incomplete agreement the two diagnostic systems on the particular symptoms to be included.

A related diagnosis is that of Oppositional Defiant Disorder which is often given to fairly young children who display some of the problem behaviours of conduct disorder namely defiance, disobedience or temper tantrums but do not display the more severe antisocial behaviour. ICD-10 notes that Oppositional Defiant Disorder often leads on to the more severe diagnosis of Conduct Disorder and research is generally inconclusive in deciding whether or not it is a distinct category.

Researchers have attempted to define both conduct disorder and some of its subgroups by techniques of factor and cluster analyses. Frick, Lahey, Loeber, Tannenbaum et al (1993) summarised this literature by means of a meta-analysis on 60 such studies. Their results, seen in Figure 1, illustrate that conduct problems can be placed into two bipolar dimensions. One dimension divides behaviours into overt (i.e., direct confrontation with others) and covert (i.e., no direct confrontation) while the other dimension divides behaviour into destructive and nondestructive. The intersection of these dimensions results in a division of conduct problems into four quadrants.

Figure 1



Frick et al (1993) - meta-analysis of 60 factor analyses. Clusters are formed from the intersection of two dimensions of behaviour covariation. The horizontal dimension indicates behavioural patterns ranging from overt to covert and the vertical dimension indicates types of behaviour ranging from destructive to nondestructive.

1.3 THE EMERGENGE OF PROBLEM BEHAVIOURS OVER TIME

It may be seen that both oppositional and aggressive behaviour begins to appear in the first two years of life. Most theorists would consider this part of normal development and is part of the process of independence. However there are likely to be qualitative differences between children that are antecedents to later aggressive and conduct problem. Loeber and Hay (1994) report that these differences may lie in the intensity of aggression, using aggression proactively (i.e to initiate conflict) or reactively (i.e to defend themselves) and the pervasiveness of the aggressive behaviour i.e how much aggression is part of general interaction with others.

A cross-sectional study by Achenbach and Edelbrock (1981) looking at the symptoms of conduct disorder in children from four to sixteen years old found that in the youngest group the symptoms reported by mothers were mostly temper tantrums and stubbornness, then oppositional behaviours developed, then more conduct problems developed such as stealing or firesetting. The last behaviours to appear were vandalism and substance abuse.

Studies are consistent in showing a developmental progression in which children display oppositional behaviours early on in life and then gradually progress to more severe conduct problems. This progression is illustrated in Figure 2. Lahey and Loeber (1994) note that, although a progession does exist, not all children who develop early behaviour problems will go on to develop the more severe ones. Also, the more severe problems later on usually occur in

addition to the earlier ones as the child gets older, i.e., the earlier problems do not disappear.

Figure 2

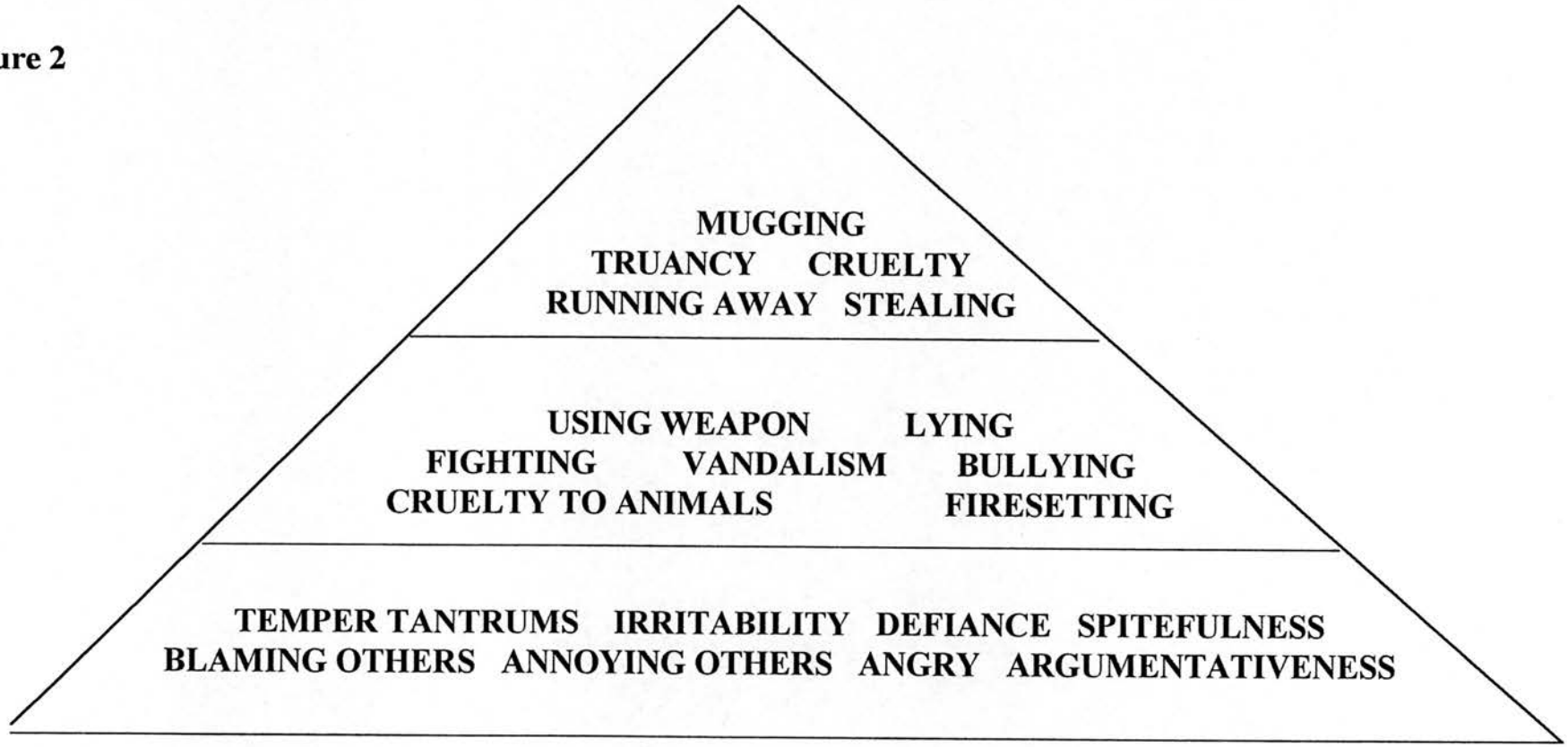


Diagram of the developmental progression of conduct disorder. Problems at lower levels of the pyramid tend to emerge earlier in the development and are predictive of the emergence of the more severe problems at the upper levels of the pyramid later in development. (Lahey and Loeber 1994)

1.4 COMORBIDITY

The consideration of one or more other disorders co-existing with conduct disorder is very important. For example, knowing that the presence of one disorder perhaps increases the risk of the presence of another has implications for understanding its etiology, treatment and prognosis (Caron and Rutter, 1991).

1.4.1 Attention Deficit Hyperactivity Disorder :-

One of the major conditions often associated with conduct disorder is that of Attention Deficit Hyperactivity Disorder. Both epidemiological and clinical research has highlighted the overlap between the two disorders (e.g., Taylor, Sandberg, Thorley and Giles, 1985). Some researchers have suggested that in fact conduct disorder and ADHD should be regarded as different aspects of the same syndrome (e.g., Shapiro and Garfinkel, 1986). However, cluster and factor analyses have produced evidence that the two are separate but highly correlated. In a study by McArdle, O'Brien and Kolvin (1995) children who were regarded as being "at risk" or "maladjusted" by a screening procedure were significantly more likely to have conduct disorder and hyperactivity occurring comorbidly. They also found that most younger children diagnosed with conduct disorder showed signs of ADHD suggesting that hyperactivity is perhaps a prerequisite for conduct disorder at seven or eight years old.

Conduct disorder may also be seen to exist comorbidly with internalizing disorders such as depression and anxiety.

1.4.2 Anxiety :-

A number of epidemiological studies have shown that rates of comorbidity for anxiety and externalizing disorders exceed chance expectations and this occurs across different age ranges, different types of anxiety and different diagnostic criteria. Russo and Beidel (1994) provide a useful review of these studies. Research suggests that the presence of anxiety has a moderating effect on the severity of the conduct disorder and as such it has been considered that anxiety may be a protective factor in terms of the long term prognosis of conduct disorder (Russo and Biedel 1994). However, in more recent studies on adolescent samples contrasting results have been found. For older adolescents showing quite marked and chronic anxiety levels there was a significantly increased level of involvement in disruptive behaviour patterns (Loeber, Russo, Stouhamer-Loeber and Lahey, 1994). Therefore, the relationship between anxiety and conduct disorder is somewhat different depending on the age of the child.

1.4.3 Depression :-

Anderson, Williams, McGee and Silva (1987) and McGee, Feehan, Williams et al (1990) investigated the comordibity of conduct disorder and depression in a population sample of the same birth cohort at different times in New Zealand and found the prevalence rates to be 15% and 15.3% respectively. Kashani, Beck, Hoeper et al (1987) in a study of the adolescent population in Missouri found 31% of the sample had a diagnosis of both conduct disorder and depression. The evidence is therefore fairly strong that emotional disorders

especially depression does occur more commonly than expected in children and adolescents who also have conduct disorder.

In relation to the course of children who present with the co-existence of these two disorders, research has had variable results. For example, Kovacs, Paulauskas, Gatsonis and Richards (1988) reported that depression in children with conduct disorder did not differ in its course compared with depressed children with no conduct disorder. However, Harrington, Fudge, Rutter, Pickles and Hill (1991) found that children with conduct disorder and depression were much less likely to be depressed when they became adults than children with depression alone. For a more comprehensive review of this subject see Zoccolillio (1992).

1.5 EPIDEMIOLOGY OF CONDUCT DISORDER

From general population studies it can be seen that problems with conduct disorder and antisocial behaviour are common. In the Isle of Wight study undertaken by Rutter, Tizard and Whitmore (1970) found that 3.2% of ten year olds met the criteria for conduct disorder and Rutter, Cox, Tupling, Berger and Yule (1975) found its occurrence to be 4% in a rural population rising to 9% in an urban population.

Within different geographical locations in can be seen that the rates are reasonably similar. For example, Offord, Boyle and Szatmari (1987) in Ontario, Canada found the rate to be 5.5% of 4 - 16 year olds ; a study in Queensland

(Connell, Irvine and Rodney, 1982) found it in 6.7% of ten year olds ; McGee, Silva and Williams (1984) in Dunedin., New Zealand found the prevalence to be 6.9% of seven year olds.

1.5.1 Gender Differences :-

The majority of the research evidence indicates that the prevalence of disruptive behaviour patterns is lower in girls than boys. For example, Rutter et al (1970) found that conduct disorder is three times more common in boys than girls. Gender differences begin to appear in the preschool years but it is not always evident that this difference in manifesting difficult behaviour is present from the start. A study by Hay and Ross (1982) observed children between the ages of 18 and 36 months of age in their homes with familiar peers and found that there was no sex differences in the mother's reports of aggressive behaviour. As children enter into their school years, gender differences become more prominent. Boys tend to play in larger groups, in more public places, their play is rougher and there is generally more fighting and dominance issues whereas girls are more likely to form smaller friendship groups with more emphasis on sharing and turn-taking (Maccoby 1986). These differences as Maccoby suggests are powerful in shaping the prosocial or antisocial behaviour of a child.

It is important to note, however, that gender differences are somewhat dependent on the social context. For example, in the home with siblings,

mixed-sex sibling pairs are more likely to be aggressive to one another than are same-sex pairs (eg Pepler, Abramovitch and Corter 1981).

1.5.2 Clinical Referrals :-

Studies over the years (eg Gilbert 1957 ; Herbert 1978; Robins 1981) have indicated that aggressiveness, conduct problems and antisocial behaviours encompass from a third to a half of all child and adolescent clinic referrals. Patterson (1982) found that a third of referrals for professional help made by parents and teachers involve conduct problems.

1.5.3 Difficulties with epidemiological research :-

There are a number of difficulties associated with getting an accurate estimate of the prevalence of conduct disorder either within the general population or in clinical practice. Firstly, studies

may vary in their choice of criteria for defining conduct problems, therefore the range and type of problems included in a study will partly determine how prevalent they are. Secondly, there is likely to be a fair amount of variation in prevalence rates across children in different age ranges, gender, socio-economic background and geographical location. Thirdly, as discussed earlier, comorbid conditions may also be present and carefully screened for as any evidence of the occurrence of one condition may be due to the presence of another.

1.6 THE PROGNOSIS FOR CONDUCT DISORDER

The research evidence is highly consistent in its findings that the symptoms of conduct disorder, over time, are relatively stable. Scott (1998) reported that over 90% of repeat adolescent offenders had conduct disorder as children. A longitudinal study carried out by White, Moffitt, Earls, Robins and Silva (1991) in New Zealand looking at children from birth to age fifteen found that children who displayed externalizing behaviours at age three were highly likely to develop severe antisocial behaviour at thirteen years old. Bates, Bayles, Bennett, Ridge and Brown (1991) found that in another longitudinal survey a mother's ratings of her son's difficult temperament at age six months significantly predicted externalizing scores at age eight. Rose, Rose and Feldman (1989) found that externalizing scores on the Achenbach Child Behaviour Checklist (Achenbach 1979) completed by parents were significantly correlated between ages two and five.

Early conduct problems often predict later psychiatric disorders, for example, alcohol and drug problems and antisocial personality disorder (e.g., Magnusson and Bergman, 1988). Generally, there is a poorer prognosis for adult life - a higher incidence of marital break-ups, poorer job histories, failure to complete schooling, financial dependency and poor interpersonal relationships.

1.6.1 Conduct Disorder and Criminality:-

There is a strong association between conduct disorder and involvement in criminal behaviours. This was highlighted in the Cambridge Study undertaken

initially by West (1969, 1982) and then by Farrington and West (1990). A useful review of the key findings of this study is given by Farrington (1995). The study was a prospective longitudinal survey of the development of delinquency and antisocial behaviour in approximately 400 South London boys born around 1953. These boys were followed up and at various points were interviewed individually between eight and thirty-two years of age. The majority of the boys came from a working class area , were mostly white (87%) and came mostly from two parent families. A number of measures of individual characteristics were taken, for example, IQ, attainments, personality and impulsivity as well as information about the boys' living circumstances, employment histories, relationships, leisure activities and offending behaviour. Information was also gathered from parents, teachers and other records.

The results of this study showed that up to age 32 over one third of the males interviewed (37%) were convicted of criminal offences. Nearly three-quarters of those convicted as juveniles were reconvicted between ages 17 and 24 and nearly a half between the ages of 25 and 32. At age eight to ten years old the future convicted delinquents were more likely than the non-delinquents to have been rated difficult as boys plus were more likely to have parents and siblings who had also offended. As Farrington (1995) notes "delinquents tended to be troublesome and dishonest in their primary schools, to be aggressive and frequent liars at ages 12 to 14, and to be bullies at age age 14. By age 18, delinquents tended to be antisocial in a wide variety of respects, including

heavy drinking, heavy smoking, using prohibited drugs and heavy gambling."(p 936)

1.6.2 Cost to Society :-

Most studies have found that difficult behaviours presenting early on in life have a fairly strong likelihood of persisting into adolescence and into later adult life causing considerable impairment to individual functioning and wider consequences to society. For example, the financial implications alone are considerable (Scott, 1998):-

- for the Health Service: e.g., 30% of child consultations with GPs are for behaviour problems
- for Social Services: e.g., money and effort in the protection of disruptive children and community resources
- for Education: e.g., funding of special units and schools for emotionally and behaviourally disordered children
- for Law enforcement agencies - detection and prevention of delinquency

1.7 INVESTIGATION OF RISK FACTORS

From longitudinal studies such as those carried out in the Cambridge Study a number of factors have been postulated that are considered to increase the risk of the occurrence of a negative outcome, i.e., persistent patterns of antisocial behaviour. However, caution is required when desribing such factors as it may be difficult to determine whether a factor is indeed an indicator of later antisocial behaviour difficulties or if it is an actual cause of it. It is therefore

important within causal analyses not to include a measure of the dependent variable as an independent variable as this may lead to wrong conclusions and overestimations of the predictive power of factors. Within the research on conduct problems and later antisocial patterns there is always the difficulties with teasing out individual causal elements and there tends to be an interrelation of factors, for example, deprivation, inconsistent methods of child-rearing, poor parental supervision of children, poor impulse control within the children and school failure.

Farrington (1995) proposed a number of factors derived from the Cambridge Study which were predictive of later delinquency. These were antisocial child behaviour, the presence of hyperactivity, low intelligence and poor school attainment, family criminality, family poverty (e.g., low income, large family, poor housing) and poor parental child-rearing behaviour. These factors and others will now be described in further detail.

1.7.1 Factors relating to the Child

These factors mostly relate to aspects of the child's internal systems- for example, physiological, neurological, cognitive systems, which are at least partially involved in the development of conduct problems.

Intelligence :-

The Cambridge Study highlighted a connection between intelligence and delinquency. One third of the boys in the study who scored 90 or less on a

nonverbal intelligence test at ages eight to ten went on to have later convictions for offending behaviour. Low nonverbal intelligence was highly correlated with low verbal intelligence and with low school attainment at age 11. Again all of these predicted later offending behaviour. Kazdin (1987) found that low academic achievement is often a factor in children displaying conduct problems and this continues through their school career.

Children with conduct disorder are often noted as having difficulties in their reading skills. For example, in the Isle of Wight study (Rutter, Tizard and Whitmore 1970) a higher than expected correlation between specific reading difficulties and conduct disorder was found. Jorm, Share, Matthews and MacLean (1986) found that a significant number of children who go on to develop reading difficulties display quite high levels of difficulties from the start of their school career.

Maughan and Pickles (1996), however, point out that the link between intelligence, reading difficulties and conduct problems is by no means a simple one and that there is likely to be gender differences, changes across developmental stages and the influence of attentional problems that must be considered. It is unclear within the research whether early specific difficulties precede the development of behaviour problems or if behaviour problems which develop early on in life hinder the acquisition of acaedmic skills. A useful article considering these issues is Hinshaw (1992).

Impulsivity :-

The overlap between conduct disorder and hyperactivity has been described earlier (p7) with the suggestion made that signs of hyperactivity in very young children may be a predisposing factor to conduct disorder. In the Cambridge Study, boys regarded by teachers as restless or lacking in concentration and shown to be the most impulsive on psychomotor tests tended to be juvenile offenders but this pattern did not persist into adulthood. Poor concentration or restlessness at age eight to ten was an important independent predictor of adult social dysfunctioning at age 32.

Temperament:-

This refers to personality traits that are consistent over time and across situations and may include a child's activity level, adaptability to various situations and emotional responsiveness.

There is some evidence for correlations between specific temperament scales and behaviour problem scales. For example, Bates (1990) found a significant correlation between lack of adaptability and the development of aggression. This study also found that a persistent negative child affect was predictive of later conduct problems. Luengo, Otero, Carrillo de la Pena and Miron (1994) found that certain personality variables such as sensation-seeking and impulsivity were predictive of antisocial behaviour but that empathy and self-esteem were seen as inhibitors of antisocial tendencies. This is supported by

Miller and Eisenberg (1988) who note that empathy is negatively related to aggression, externalizing and antisocial behaviours but the actual correlations were quite low suggesting that there are other factors that need to be taken into account.

Although temperament is an important consideration the amount of variance in terms of behavioural problems accounted for by temperament is quite small and it seems likely that a number of other factors interact with temperament to produce a negative outcome.

Psychophysiological findings :-

Some studies have highlighted some psychophysiological variables that occur in children with conduct disorder. For example, Raine and Venables (1984) found a low resting heart rate among conduct disordered youth and skin conductance responses have been found to differentiate between conduct disordered children and controls (Schmidt, Solanto and Bridger 1985). The research, although scant, may be suggestive of the involvement of the autonomic arousal system.

It is of note, however, that the findings from genetic and biological theories have often been weak and inconsistent. This may be due to the heterogeneity of conduct disorder, the weak methodology of the studies or perhaps conduct problems in children are less strongly related to biological or genetic factors than has found to be the case for antisocial behaviour in adults.

1.7.2 Factors relating to the Family

There are numerous studies which highlight various factors pertaining to the family system which have been linked to the development of conduct problems in children. These include child-rearing practices, interrelationships within the family, presence of psychopathology and criminality within the family.

Parent skills :-

Loeber and Stouthamer-Loeber (1986) found that poor parental supervision and monitoring of children, erratic or harsh parental discipline, parental rejection of the child and low parental involvement were all important predictors of later conduct problems. Farrington (1995) found that harsh parental discipline at age eight significantly predicted later violence.

Family relationships :-

Specific family characteristics may contribute to the development and maintenance of conduct problems. Early studies indicated that divorce within a family may be associated with the development of conduct disorder especially among boys but there was found to be considerable variation in families. More recent studies have focused on parental conflict and the amount and intensity of this that may be present in the home. Marital conflict is associated with more negative perceptions of the child's adjustment, inconsistent parenting, fewer rewards and more punitive methods of punishment for the child (Stonemen, Brody and Burke, 1988). If aggressive behaviour is present in the marital relationship, the likelihood of conduct disorder occurring is greater than if

marital conflict alone is present without aggression (Jouriles, Murphy and O'Leary, 1989).

Family psychopathology :-

Maternal depression has been shown to increase the child's risk for developing a conduct disorder. Williams, Anderson, McGee and Silva (1990) in a community study found that if the mother was experiencing depression when the child was five years old then this was related to reports of behaviour problems at age seven. Maternal depression is associated with deficits in parenting skills and in difficulties within the mother-child bond. However as more recent research has indicated (e.g., Fergusson and Lynskey, 1993) it seems likely that associations between maternal depression and behavioural adjustment in children reflects the effects of long-term exposure to parental mental health problems rather than the effects of short term exposure to the problems. Other confounding factors may also be present such as social and marital problems which are independently associated with childhood behaviour problems as well as being risk factors for the onset of maternal depression. Forehand, Lautenschlager, Faust and Graziano (1986) found that maternal depression was associated with conduct problems indirectly through the effect this had on parenting practices.

Alcohol and drug problems :-

Gabel and Shindledecker (1992) found that alcohol abuse is less important than other substances of abuse in predicting aggression and conduct disorder in

children. There is an effect of alcohol abuse but it is partly additive with effect of other substances. The effect of paternal substance abuse especially drug abuse is greater than effect of maternal substance abuse in predicting aggression.

Family criminality :-

The Cambridge Study found that there was a tendency for offending behaviour to be concentrated in families and criminal behaviour particularly in the father has been shown to be a strong predictor of the children within the family also producing conduct problems and offending behaviour.

Abuse :-

Retrospective studies have found an association between child abuse and delinquency. For example, studies looking at court and medical records found that between nine and fifteen percent of delinquents had been abused (e.g., Shanok and Lewis, 1981). Studies using self-report of abuse among delinquents have found the rates to be as high as 69% (e.g., Rhoades and Parker, 1961). Alfaro (1983) carried out a large study examining the records of 6,000 abused and neglected children and found that delinquents who were abused during their childhood tended to commit more violent crimes such as assault than did delinquents who were not abused. It has been found that physically abused children can display more aggressive behaviour towards their peers and adults (e.g., Spivack, 1983), are less compliant (e.g., Reidy, 1977) and have poorer impulse control (e.g., Green ,1978).

1.7.3 Other Factors

Environment:-

Factors such as poverty, unemployment, large family size and illness within the family are also known to be associated with various emotional and behavioural problems in children including conduct disorder. Webster-Stratton (1991) found that families with conduct-disordered children report a greater incidence rate of life stressors than do control families. They also tend to experience more daily stresses which accumulate over time to produce more negative and adversive interactions within the family.

Webster-Stratton and Herbert (1994) note that the link between socio-economic status and conduct disorder is probably fairly tenuous as often social class encompasses many confounding variables. When these variables are controlled for, social class in itself has little relation to conduct disorders.

Peer group:-

There has been found to be a close relationship between offending behaviour of a young person and those of his/her peer group. Reiss (1988) found that delinquent acts tended to be committed in small groups rather than alone. American National Youth Survey (Elliott et al 1985) found that having delinquent peers was the best independent predictor of self-reported offending in multivariate analysis. Agnew (1991) showed that this relationship was

greatest for teenagers who were most strongly attached to their peers and felt the most peer pressure.

School :-

Negative school experiences can further exacerbate the occurrence of conduct problems in children already at risk. They may experience peer rejection due to disruptive and controlling behaviour. They may also develop poor relations with teachers and this is somewhat reciprocal in that teachers may respond quite negatively to conduct disordered children.

Rutter et al (1976) found that such variables as degree of emphasis on academic abilities, amount of teacher time spent on lessons, degree of emphasis on individual responsibility, extent of teacher availability, teacher-pupil ratio were related to oppositional and offending behaviours.

1.7.4 Investigation of Protective Factors

A protective factor may be seen as the opposite of a risk factor or it may be a variable that it some way interacts with the risk factor in order to minimize its effects. The study of protective factors typically focusses on samples where certain risk factors are established andf then looking for factors that predict successful members of this group. For example, Werner and Smith (1982) investigated children before the age of two who had four or more risk factors for the later development of conduct problems but who did not develop such problems. The protective factors they isolated were being the first child, an

active and affectionate infant, small family size and much attention-giving from carers.

There have been a number of studies which have highlighted many attributes of children that may be protective. For example, higher socio-economic status; high I.Q (e.g., Kandel, Mednick Kirkegaard-Sorenson et al, 1988); good problem solving ability (e.g., Werner, 1990); easy temperament (e.g., Cowen, Wyman, Work and Parker, 1990); absence of early separation or losses (e.g., Garmezy and Rutter, 1985). Features of the child's family can also be protective, for example, competent parenting (Baldwin and Cole, 1990); warm relationship with at least one carer (e.g., Werner and Smith, 1982); good social support for the family (e.g., McFarlane, 1987). Finally, some studies have also investigated resilient children's psychological functioning and found that good coping styles, an internal locus of control, higher self-esteem, interpersonal empathy and warmth and a sense of humour all seem to protect children in stressful circumstances (e.g., Cowan et al 1990; Werner and Smith, 1982; Garmezy and Rutter, 1985; Masten, 1982).

Summary

The above discussion has highlighted a number of factors which are regarded as being predictive of and are associated with the development of conduct disorder in childhood and persistent antisocial behaviour patterns in later adolescent and adult life.

The multitude of factors associated with conduct disorder, whether child, family or environmental factors, suggest that any uni-directional model of explanation would be limited. As Frick (1998) notes bidirectional or transactional models are more appropriate to describe the complex processes through which the child's behaviour both shapes and is shaped by external influences.

The next section discusses the major theories of how the mechanisms of the many risks factors may operate to produce conduct disorder. The section begins with a discussion on the normal processes by which children learn appropriate social and moral behaviour and the skills involved in such behaviour.

2 - THEORIES OF CONDUCT DISORDER

2.1 THE DEVELOPMENT OF SOCIAL AND MORAL BEHAVIOUR

Piaget (1932) defined morality as the tendency to accept and follow a system of rules which regulate interpersonal behaviour. These rules will vary from culture to culture. It is important to have an understanding of how a child develops not only a knowledge of these rules but also the skills necessary to implement them. Some of these rules may be relatively easy to transmit to children, for example, politeness, appropriate behaviour with particular people in certain situations. Other rules are more subtle and complex and may include such things as, respect for others, honesty, trust. Children are socialized into certain behaviours, attitudes and values by various agencies. These are primarily the

family but also peers, other adults in their lives (such as teachers), their culture , the media.

In normal development by the end of the first year of life children are able to comply with very simple commands such as "come here" but it does not take long after this for problems of disobedience to appear. Levy (1955) reports that it is usually during the second year when a child will refuse to do what he/she is told and wants to do things for themselves. This period is regarded as being when the child is establishing themselves as a independent person, separate from the parents (e.g., Loevinger, 1966). Some particular problems are very common around this time and are seen as part of normal development, for example, temper tantrums, defiance and disobedience. By the time the child is ready for school some rules have become partly internalised but there may not be a full understanding of why such rules exist, just that they have to be obeyed.

Piaget described a stage-model of children's understanding of moral issues and he believed that the ways in which children understand these issues are qualitatively different from adolescents or adults. In the early years, young children view rules as absolute, unquestionable and cannot be changed. However, by age 10 the child is beginning to perceive some rules as being manmade and may be changed if some agreement can be reached between the parties involved. Obedience is still seen as crucial to this stage but there is better understanding of cooperation and compromise. In the adolescent phase,

morality is seen as an individual matter but has a more in-depth understanding of why certain rules exist. The adolescent has the capacity for more complex reasoning patterns eg generating alternative respones to various situations and deduction of consequences. This is a time for the individual to work out their own particular moral code and this may lead to certain principles and rules being challenged.

Stage models are useful in attempting to describe the acquisition of moral and social behaviours but they are perhaps too generalised and there may be any number of complex, interrelated factors within each stage that will determine the learning and understanding of certain values and attitudes.

2.1.1 The Acquisition of Social Skills

Children have to master many different social skills and the confidence they develop and how much they value that competence will influence their ability to manage social situation successfully. Socially skilled individuals are better able to deal with difficult situations by compromising, persuasion and humour which are likely to diffuse the situation so preserving self-esteem. Such individuals may also be better able to display good problem-solving abilities, eg imagining alternatives to various problems and understanding consequences. In contrast to this, persons who have inadequate social skills show a narrow range of options in dealing with difficult and provocative situations making a recourse to aggressive behaviour more likely.

2.1.2 The Development of the "Self-System"

This is a term used by Harter (1983) and comprises of self-concept, self-control and self-esteem.

a. Self-concept. Research has noted that children's notions about themselves and others change over time as they mature. Very young children will use very concrete, simple terms to describe themselves, for example, stating physical characteristics. As they get older a progression is seen moving from using general traits such as friendly or neat, to using more emotional attributes (e.g. bad-tempered), to describing more interpersonal traits (e.g. shy, popular). Eventually in young adulthood they describe more psychological qualities i.e their attitudes and values. Each of these stages will be influenced by cognitive skills and the child's understanding of the social world around them, for example, becoming more aware of different points of view and the ability to take another's perspective about a situation. The ways in which children describe themselves are likely to be influenced by the way in which others respond and attend to them, especially in the early years via family members. For example, a child who is told they are "naughty" and only attended to when misbehaving may develop a concept of being "bad" and then go on to behave in ways consistent with this self-concept. As children get older, they also develop an increasing sense of how others around them are performing and are treated and this too will impact on their ideas about themselves in relation to others.

b.Self-control. The regulation of emotions and behaviours is a very important part of a child's development. Children must learn to behave in acceptable ways

if they are to be socially well functioning. Kanfer (1970,1971) describes 3 steps in the process of self-control :-

- self-monitoring - i.e., being able to observe your own actions
- self-evaluation - i.e., knowing whether a particular behaviour is acceptable or not
- self-reinforcement - i.e., ability to reward for performing acceptable behaviours

During the early years, children's behaviour is directed and controlled by others (e.g., parents, other caregivers). This can be done either proactively (i.e., setting things in place to prevent misbehaviour) or reactively (i.e., stopping misbehaviour by words or actions). As they mature, children will use language to guide their behaviour eventually leading to internalised language that is used to plan activities and behaviours beforehand.

Self-control within children is heavily influenced by the behaviour of those around them together with their own developing cognitive abilities.

c.Self-esteem. This is seen as the discrepancy between the actual self-concept and the ideal self-concept. This will also be influenced by perceived competence in self-control skills. Perceived competencies in certain areas and approval from valued others are important in the formation of high self-esteem. Children are most likely able to form an overall view on themselves but also have notions about themselves in specific domains of their lives.

An influential model of viewing self-esteem in children has been that of Harter (1983) who described four specific domains related to school-aged children's feelings of self-worth - a) relationships with parents; b) self-control of negative emotions; c) self-acceptance - extent to which they are happy with themselves and d) social conduct - how they get along with others etc. In later childhood and moving into adolescence, social acceptance by peers becomes increasingly important for a sense of self-worth as well as the extent to which they "fit in" with their environment - family, peers, school etc.

Therefore, a child's self-system is an important consideration in the socialization process and in the learning and understanding of moral behaviours. Deficits in social skills, poor self-control and low self-esteem are likely to be implicated in the development of persistent patterns of antisocial behaviour.

2.2 THE DEVELOPMENT OF CONDUCT DISORDER - LEARNING THEORIES

Learning theories would postulate that social and moral behaviour is learned in the same way that other skills and behaviours are. Social learning theorists note the particular importance of the family, in the first instance, of being a crucial agent in the child's learning of appropriate social behaviour. As Herbert (1987) states "(the family) determines the categories of behaviour which are defined as "good", and therefore rewarded and encouraged, and those which are labelled "bad", and therefore punished and suppressed. Positive experiences, in

particular, give shape and substance to the prosocial patterns of behaviour with which they are associated, and the more often these experiences are repeated the more enduring the responses become." (p27). When a family fails to do this in a clear and consistent manner then the child's social development is hindered and leaves the child vulnerable to other family and environmental stressors.

Learning theories would hypothesise that behaviour is learned and maintained by its effects on the environment and the feedback received from these effects. Therefore, learning is seen as a transaction between the individual and the environment which will sometimes rewards and sometimes punishes certain actions. In this model, problem behaviours are regarded as the consequences of maladaptive learning processes. In all forms of learning, maladaption can occur. For example, in learning through observation (modelling), a child may inadvertantly imitate undesirable adult behaviour simply through lack of comprehension that the behaviour is undesirable. Parents and other adults may by performing certain actions reinforce unwanted behaviours, for example, by paying attention to them and similarily failing to reward desirable behaviours (instrumental learning). Behaviours which provoke pleasant outcomes for an individual are being positively reinforced and this is likely to lead to the behaviour reoccurring. Certain behaviours will also increase in strength if, by performing them, unpleasant outcomes can be avoided. This is known as negative reinforcement.

Learning is regarded as an important part of the socialization process. Parents, teachers and other significant adults in the child's life teach prosocial behaviour and guide away from antisocial behaviour. There are various techniques for teaching and influencing children including reward systems which may be tangible or psychological (e.g., praise, attention) and punishments (e.g., disapproval, removal of desired objects or goals). An important concept within learning theories is that of consistency in the management of behaviours, i.e., that certain behaviours are always managed in similar ways - desirable behaviours rewarded, undesirable ones ignored or punished. From Chapter 1, in the section on risk factors (p21), it can be seen that inconsistent parenting involving poor supervision, lack of attention to prosocial behaviours and reinforcement of inappropriate behaviours is associated with a vulnerability to developing conduct disorder.

Within the social learning model, the importance of cognitive factors is acknowledged and these are seen to have an important mediating function in the production of certain behaviours. For example, interpretations made about situations, the perceived ability to carry out certain actions and the expected outcome as well as understanding of consequences may mediate between a situation and the production of anti-social behaviours.

Learning can be a direct process between parents and children but also indirect processes may be in operation. For example, parents may provide a model for the child in showing them how to deal with stressors in the environment; the

way they interact with others around them and they show the type of behaviours and affect that are valued (so therefore rewarded) within the family and the surrounding environment.

2.3 THE DEVELOPMENT OF CONDUCT DISORDER - ATTACHMENT THEORY

The originater of Attachment Theory, Bowlby (1969,1988), considered the themes of attachment, separation and loss, which are part of the human experience, to be vital components of a person's psychological well-being. He saw attachment as a necessary biological function in protecting from predation and therefore its primary role is to provide security. Bowlby believed that attachment is not only a need in childhood but is required in some form throughout life. Separation and loss , he also saw as important concepts and especially the person's response to such events and the management of these are strong predictors of psychological well-being.

Early research by Ainsworth (1967, 1982) introduced the concept of patterns of attachment as observed in infants using the "strange situation" test. A pattern of secure attachment was identified as well as three patterns of insecure attachment - avoidant, ambivalent and disorganised. A key determinant of attachment patterns was found to be parental responsiveness. A parent may be consistently reponsive, consistently unresponsive or inconsistently responsive. The latter two being part of the formation of insecure attachment patterns

which may be seen as defensive strategies which attempt to maintain some contact with rejecting or inconsistent parents (Hamilton, 1985).

Much of the subsequent research on Attachment Theory has focussed on the predictive power of attachment status in infancy for subsequent behaviour patterns. For example, Bretherton (1991) found that children deemed to be securely attached at age one will, generally, be showing signs of security through into their school years (e.g., good interpersonal relationships). Insecure avoidant children are more likely to be loners, display aggressive behaviour and go on to develop conduct disorder (e.g., Sroufe, 1983) while insecure-ambivalent children may be quite dependent on others. Other studies have supported this view that insecure attachment patterns may increase the risk of vulnerability to psychopathology and reduced social functioning (e.g., Sroufe 1983).

More recent research has looked at disorganised attachment patterns. Lyons-Ruth (1996) reports that infant disorganisation rather than avoidance as such is associated with later aggressive behaviour. Disorganised patterns represent a lack of consistent and appropriate strategies for organising responses requesting security when under stress. The type of behaviours such a pattern would produce are likely to be different from one child to another but may include helplessness, apprehensiveness, avoidance of the caregiver and conflict behaviours. As these children grow older the behaviours they produced in infancy often give way to more controlling behaviour toward the caregiver (e.g.

coercive behaviour). Longitudinal studies (e.g., Wartner, Grossman, Fremmer-Bombik and Suess, 1994) have highlighted this change in behaviours. Cicchetti and Barnett (1991), however, looked at maltreated children at various points in their

first two years and found that the original conflict behaviours remained prevalent throughout. This suggests more long-term studies are required to clarify the nature of the behaviours produced by disorganised attachment patterns over time.

In summary, therefore, there is quite a substantial body of evidence linking the presence of insecure attachment relationships, especially those of the disorganized category, to various of maladaptive functioning and behavioural disturbance. Lyons-Ruth, Repacholi, McLeod and Silva (1991) note that under such conditions as maternal depression, maternal alcohol problems, adolescent parenthood, multiple family problems or families in which maltreatment is occurring there is a high probability of disorganized attachment patterns occurring.

2.4 THE DEVELOPMENT OF CONDUCT DISORDER - THE INFLUENCE OF PARENTING STYLE AND OTHER FAMILY DYNAMICS

The nature of parents' relationship with their children will have an important bearing on a child's development and adaptation.

2.4.1 Parent-child Relationships

Early research by Baumrind (1967) reported on variations in four dimensions of parental behaviour - control, maturity demands, communication and nurturance - that was associated with certain types of personality traits in children. For example, it was found that parents with self-reliant children were likely to be regarded as scoring highly on all four dimensions, parents of anxious children had average to low average ratings on control and maturity demands but were less communicative and not so supportive or nurturant of their children. Parents of immature children were rated low on control and were uncommunicative toward their children. Baumrind also postulated three parenting styles that predicted certain behavioural and personality outcomes in children. These styles were 1.authoritarian in which the child's behaviour is highly shaped and controlled by the parents; 2.authoritative in which the parents direct the child's behaviour in a reasonable way, negotiation is encouraged and the reasoning behind rules is explained; 3. permissive in which parents make few demands for responsibility for routines or orderliness, they avoid rules as active agents in shaping behaviour, the children are often involved in family decisions and the child is encouraged to regulate their own activities. Baumrind (1971) found that children of authoritative parents were more friendlier, more cooperative, more achievement -oriented and that the girls were more independent than the children of the other types of parents. These associations have stood up over time and are still regarded as useful categorisations of parenting style.

Most early studies focused on the relationship between the mother and child however the influence of the father is also important to take into account. Blanchard and Biller (1971) found that boys whose father had been absent from the household before they were five years of age had the most social adjustment difficulties, although, boys whose father had a low presence in the household also had a number of difficulties especially with academic performance. Forehand, Wierson, Thomas et al (1991) have shown that a good father-adolescent relationship correlated with fewer behavioural problems.

Another factor is the effect of the parent-child relationship on cognitive development. Wulbert, Kriegsmann and Mills (1975) looked at mothers of language-delayed children in contrast to controls and found that they were less emotionally and verbally responsive to their children, tended to employ more restriction and punishment, provided fewer adequate play materials and fewer opportunities for stimulation. As mentioned earlier, research has highlighted that children who display conduct disorder often have associated reading and language difficulties so Wulbert's study is interesting from this point of view.

Generally, studies have been consistent in showing that positive parent-child relationships act as a protective factor or a buffer from the exposure to major life stresses (e.g., Gribble et al 1993). Patterson and Stouthamer-Loeber (1984) have shown that firm control, clear communication, warmth, affection, consistent and appropriate assertion of power on the part of the parents

correlate in the children displaying such things as an increased overall competence, better problem solving abilities and increased prosocial behaviour.

2.4.2 Family Dynamics

The inter-relationships between family members and the way the family functions as a unit will also have an important impact on children. Many different theories of family structure have been proposed that are derived from various other influential theories, for example, psychodynamic and group theories, cybernetics, systems theory and learning theory. Over the last two or three decades a number of schools of family therapy have arisen each with their own particular factors considered important to assess in families. For example, in the McMaster Model of Family Functioning (Epstein, Bishop and Levin, 1978) six aspects of family functioning are highlighted; namely problem solving, communication (both verbal and non-verbal), the appropriate allocation of roles within the family, affective responsiveness (i.e how a family meets the emotional needs of those within it), affective involvement (i.e the degree to which family members are involved with one another). Problems in one or more areas of the above will affect the overall functioning of the family and may mean that it becomes quite dysfunctional- for example, displaying poor problem-solving, unclear roles, problems with communication and meeting the emotional needs of each of its members. These factors may partly be causal in the develpoment or exacerbation of conduct problems in children. The last of the McMaster model categories exemplifies this. Behavioural control is the influence family members have on one another. In this category,

a) a rigid style of control may lead to power struggles within the family and a displacement of anger outside the home; b) a laissez-faire style, in which the control is quite disorganised, may lead to insecurity among children, attention-seeking behaviour and little impulse or self control; c) a chaotic style (which is again unpredictable) may result in poor adaptive functioning in a child and finally d) a flexible style of control is regarded as the most supportive and constructive style.

In the 1970s, Minuchin, developed structural family therapy and stressed the importance of subsystem patterns within families and the boundaries between these subsystems. Such factors as coalitions and alliances between family members need to be examined as do power relationships. In relation to the types of boundaries that may occur, Minuchin uses the terms "enmeshment" (i.e., a diffuse boundary where the behaviour of one family member has a large impact on those whom the person is enmeshed) and "disengagement" (i.e., where one member's behaviour has little impact on the members from whom that person is disengaged). In relation to conduct problems, it may be the case that clear subsystem boundaries do not exist and there is no well defined parental system that is in touch with but separate from the child system (Barker 1986).

An interesting study by Slee (1996) compared mothers' perceptions of family climate in homes with a conduct disordered child and homes of normal children. Mothers with a conduct disordered child viewed their family as being

less cohesive, more resticted in expressing emotions, more conflict and control oriented, lacking in structure and less organised than the

mothers in the control group. Inter-genertional information indicated that the mothers of conduct disordered children perceived that the families in which they were brought up in, had similar qualities as their current family.

2.5 THE DEVELOPMENT OF CONDUCT DISORDER - NEUROLOGICAL AND GENETIC THEORIES

In relation to neurological theories of conduct disorder, the most recent proposals have considered the involvement of the frontal lobes of the brain - i.e., the area involved with executive functioning. Welsh and Pennington (1988) describe executive functioning as "the ability to maintain an appropriate problem-solving set for attainment of a future goal"(p201). Types of executive functions would include the ability to control interference, inhibition, planning ability and set-shifting and maintenance.

Neuroimaging studies have suggested that there is some evidence for frontal lobe dysfunction in antisocial individuals (Raine, 1993). It also known that within this group of people there is a higher rate of neurodevelopmental risk factors such as birth complications and closed head injuries. As stated in Chapter 1, this population tends to have a lower I.Q., especially verbal I.Q . However, neuropsychological studies using tests devised to tap into executive functioning with subjects described as having conduct disorder have proved

inconclusive in providing a link between executive function deficits and conduct disorder.

Lueger and Gill (1990) found that adolescents with diagnosed conduct disorder did show cognitive impairments characteristic of frontal lobe dysfunction. For example, they made perseveration errors, failed to use feedback to correct responses and made sequential memory errors. These results were the same even when age and verbal intelligence were controlled. They concluded that frontal lobe dysfunction has an impact along with other variables in the development of conduct disorder. Other studies have found consistent evidence of I.Q- independent deficits on executive functioning measures in individuals with conduct disorder but only when comorbid ADHD has not been removed. Samples with conduct disorder but not ADHD do not exhibit executive functioning deficits (Moffitt and Henry ,1989). Linz et al (1990) supports this view that there is little evidence that conduct disordered individuals perform poorly on tasks measuring frontal lobe behaviours.

However, there are a number of difficulties in researching executive functioning difficulties in child and adolescent samples which may influence the results. Recent research has asked if the current tests for investigating executive functioning are valid. It must also be considered that if they are validated on an adult sample, this does not necessarily mean they can be applied directly to child or adolescent samples. More research and test development is required to devise valid tests of executive functioning specifically for this population.

Any results obtained from neuropsychological testing must be interpreted with caution as assumptions about causal relationships derived from observable behavioural data may be incorrect (Fletcher and Taylor, 1984). Further, the influence of confounding variables must not be under-estimated - e.g., low intelligence, motivational factors.

Genetic theories have also been proposed as possible factors in the development of conduct disorder. However, studies have found greater heritability for adult criminality than for juvenile delinquency (e.g., Raine, 1993). Concordance values comparing MZ and DZ pairs for juvenile delinquency were found to be very similar suggesting that a substantial proportion of the variance is due to shared family environment rather than genetics. A study by Brunner (1993) suggested an X-linked gene mutation that occurs causing persistent conduct disorder. This is likely to be a rare subtype of conduct disorder but may be an important consideration in neurobiological mechanisms.

In summary, the evidence seems to suggest that although there may be a small genetic involvement in the development of conduct disorder, this is by no means a simple heritability pattern and there will be a large involvement with the social environment.

Summary

The previous discussion has highlighted that there are likely to be a number of pathways to conduct disorder involving an interaction of a number of mechanisms. These indeed may change over the course of a child's development. As Frick (1998) states :-

" Theories on the development of conduct disorders must not only identify which

causal factors seem to be important for certain children with conduct disorders

but also specify how these factors interact to lead to the development of conduct problem behaviour." (p233)

The next section examines the growing body of research on the role of socio-cognitive factors in the maintenance of conduct problems over time. It is proposed that such factors may act as mediators between the many risk factors and the actual production of aggressive behaviour and other conduct problems.

3 - THE ROLE OF SOCIO-COGNITIVE FACTORS IN CONDUCT DISORDER

This present study draws on three main areas of research investigating socio-cognitive factors and highlighting their importance in the development and maintenance of conduct disorder. These areas are Dodge's (1986) sequential model of information processing in social interactions; Felner, Lease and

Phillips (1990) model of social competence encompassing a number of core skills and abilities, and finally the research focussing on the involvement of faulty cognitive processes in psychopathology in children. Each of these areas of research will be dealt with in turn.

3.1 A MODEL OF SOCIAL INFORMATION PROCESSING

There is a recognition that aggressive children and teenagers display a variety of deficits in social reasoning and social behaviour which may contribute to and exacerbate their relational problems. The consequences of these deficits are likely to place the young person at risk for school failure, criminal behaviour and in later life, interpersonal problems.

A prominent model in the area of social information processing in children is that postulated by Dodge (1986). This proposes a sequence of steps that are involved in any effective social interaction. The 5 steps are as follows :-

- ENCODING - this involves attending to relevant cues that occur in interactions both social and environmental. This leads onto -

- INTERPRETATION - of this incoming information and assigning meanings to it. This process will involve making use of previous learned information about such interactions, attributions about the intent of the interaction and sense of competency in such interactions. The next stage from this is -

- GENERATION - of a list of possible behavioural responses from a repertoire and then to choose the most appropriate response for the situation. Involved in this stage are a consideration of the goals to be achieved from the interaction and again past experiences of how likely they are to be achieved will be important. Fraser (1996) notes that people "bring to social circumstances a goal orientation that consists of feelings, temperament (toward cooperative or hostile involvement with others), prior socialization towards goals (training and role modelling from parents, teachers and others), and perceived norms or situational standards for behaviour in similar circumstances (that may be defined by culture, ethnicity, race, class, the media and other broad influences.)" (p22)

The next step is -

- ENACTMENT - this involves assessing the likely outcomes from particular responses, then selecting and performing the most appropriate responses. This then leads onto :-

- EVALUATION - i.e the reaction to the response which involves accurate attention and interpretation of that reaction to bring the child back to the beginning of the sequence.

Before considering each stage in more detail some important assumptions about the overall model noted by Fraser (1996) must be taken into account. These are as follows :-

1. This sequential model of responses to social encounters are outside normal conscious awareness.

2. There will be a number of factors influencing how effective a child is in using such processing skills - for example, predisposing factors in the environment (e.g., family climate and interactions, poverty, social isolation) and precipitating events leading up to the interaction.

3. The steps in the model are described as a series of steps although it is likely that they all interact with each other in various feedback mechanisms which will be influenced by past experiences, beliefs and attitudes and the particular context of the current interaction.

4. A child's mastery of these processing skills will guide interactions in future unfamiliar social encounters and will led to the development of more stable styles of interaction.

How does this model of information processing in social interactions apply to children who display aggressive behaviour? There have been many studies which have focussed on the individual steps of Dodge's model.

3.1.1 Encoding

Dodge and Tomlin (1987) found that aggressive children were less likely than their nonaggressive peers to attend to socially relevant cues in their interactions with others but likely to base decisions on how to respond to situations on self-schemas i.e past experiences. These are known to be subject to distortions and

therefore may lead to incorrect interpretations. Gouze (1987) found that aggressive children were more likely to attend to hostile cues in an interaction than their nonaggressive peers. Cutrona and Feshbach (1979) reported that more situational as opposed to dispositional cues (i.e feelings, motives etc) were utilized by aggressive children when asked to predict how characters in a story would resolve certain dilemmas. Dodge and
Newman (1981) found that aggressive boys displayed a bias to overattribute hostility to peers and they also make these decisions based on less information than nonaggressive peers.

Generally, aggressive children attend to fewer cues, cues that are less relevant and more hostile and situational cues in social interactions.

3.1.2 Interpretation

Numerous studies indicate that aggressive children are biased to attribute negative or hostile intentions to others (e.g., Dodge and Newman, 1981; Guerra and Slaby, 1989) particularly in ambiguous situations. Dodge (1991) found that aggressive children often make thinking errors by assigning hostile intentions to neutral social cues and interpret neutral interactions as threatening and then respond with aggression, i.e they make "hostile attributions".

This stage relates to the previous stage i.e encoding hostile cues leads to hostile interpretations and this will consequently influence the next stage of processing.

3.1.3 Response search and decision

Dodge emphasised three aspects of this process :-

1. Searching behavioural repertoire to generate a number of reponses
2. Consideration of goals want to achieve
3. Selection of a response that is most likely to achieve desired goal

It is well-documented that aggressive children find it difficult to generate alternative solutions to problems (e.g., Richard and Dodge, 1982 ; Shure and Spivack, 1980, 1982). Richard and Dodge (1982) found strategies that aggressive children generate are often not relevant or effective. They postulated that there are deficits in "means-end" thinking - "the ability to conceptualise means and potential obstacles in moving toward a goal."(Platt and Spivack, 1975). They found that "acting-out" children are aware of fewer individual steps in problem-solving and mention fewer obstacles.

Quiggle, Garber, Panak and Dodge (1992) found that aggressive children seem to generate more coercive responses i.e more confrontational. Researchers such as Slaby and Guerra (1988) and Crick and Dodge (1994) found that aggressive children have a tendency to choose goals that are inappropriate and likely to lead to further damaging of their social relationships. They may not consider more longer-term consequences of actions and such goals as control over an object and social dominance were valued.

However, another viewpoint is considered by Deluty (1981) who proposes that aggressive children may not necessarily lack the knowledge of effective strategies but just that they tend not to use them in certain interactions. This may be due to past experiences of aggressive actions being reinforced in some way making them likely to be reenacted, for example, a desired goal being achieved through aggression, approval from valued others.

3.1.4 Enactment

There has been shown to be a variety of enactment deficits in aggressive children. Lochman and Dodge (1994) found that aggressive children have problems with negotiation skills in social interactions and giving or receiving positive statements.

However, it is difficult to determine whether these deficits are result of problems with behavioural enactment itself or with social cognitive difficulties that involve an earlier step in the information processing sequence.

3.1.5 Evaluation

Only a few studies have investigated what aggressive children think about their own behaviour. For example, Lochman (1987) found that aggressive boys tended to minimise self-perceptions of aggressiveness. More research considering this stage of information processing is required.

3.1.6 Methodological concerns of the research investigating social information processing

The above research provides some evidence for the mediating influence of social information processing in the maintenance of aggression and conduct problems, but there are a number of diffficulties with the studies mentioned that highlight the need for caution before arriving at firm conclusions. Firstly, the studies vary in the definitions they utilize for problem behaviour; for example, using terms such as "maladjusted" or "socially rejected" children. The studies therefore represent fairly heterogeneous groupings. Secondly, many of the studies do not control for such variables as socio-economic status, IQ or other specific learning difficulties making it difficult to establish whether deficits in processing information do exist, are part of general cogntive deficits or may be explained by other variables. Thirdly, many of the studies researching information processing devise their own specific measures for doing so. This may mean that there is often little pretesting of the actual instrument so their reliability and validity is questionable. The development of standardised measures is therefore required.

In summary, Dodge's model provides a useful account as to why aggressive behaviour is maintained . However, as Akhtar and Bradley (1991) note, each step in this processing model only really accounts for a small proportion of the variance in aggressive behaviour- i.e., there are numerous individual differences among aggressive children. As they state :-

" most current interventions do not allow for the possibility that each child may have his/her own unique pattern of social and cognitive difficulties and a unique learning history that has led to the development and maintenance of the aggressive behaviour." (p637)

3.2 A MODEL OF SOCIAL COMPETENCE

Dodge's model has given us valuable understanding of the mediating role of information processing deficits in the production and maintenance of aggression in children. However, there are many other influencing factors which will determine whether aggression and conduct problems are maintained. One model which attempts to bring more of these factors together is that of Felner, Lease and Phillips (1990) who developed a model of social competence.

This model takes as its starting point the factors which would be considered to be part of adaptive behaviour. The skills required for successful adaptive behaviour are not only vital for a child's current level of development but will go on to form the basis for abilities and competenies in later developmental stages. The concept of "social competence" therefore has become popular among researchers investigating why some children have poorer outcomes in this area. Difficulties have ensued, however, in defining social competence and the main components of it, as well as how these components relate and interact with each other plus which components should be considered central to the concept and which are more peripheral (Felner et al, 1990).

The main aim of Felner et al's (1990) model was an attempt to develop a more systematic framework to consider the construct of social competence. The main features of the model are :-

1. 4 major skill areas which comprise the "core" elements of social competence :-

    a. Cognitive skills and abilities

    b. Behavioural skills

    c. Emotional competencies

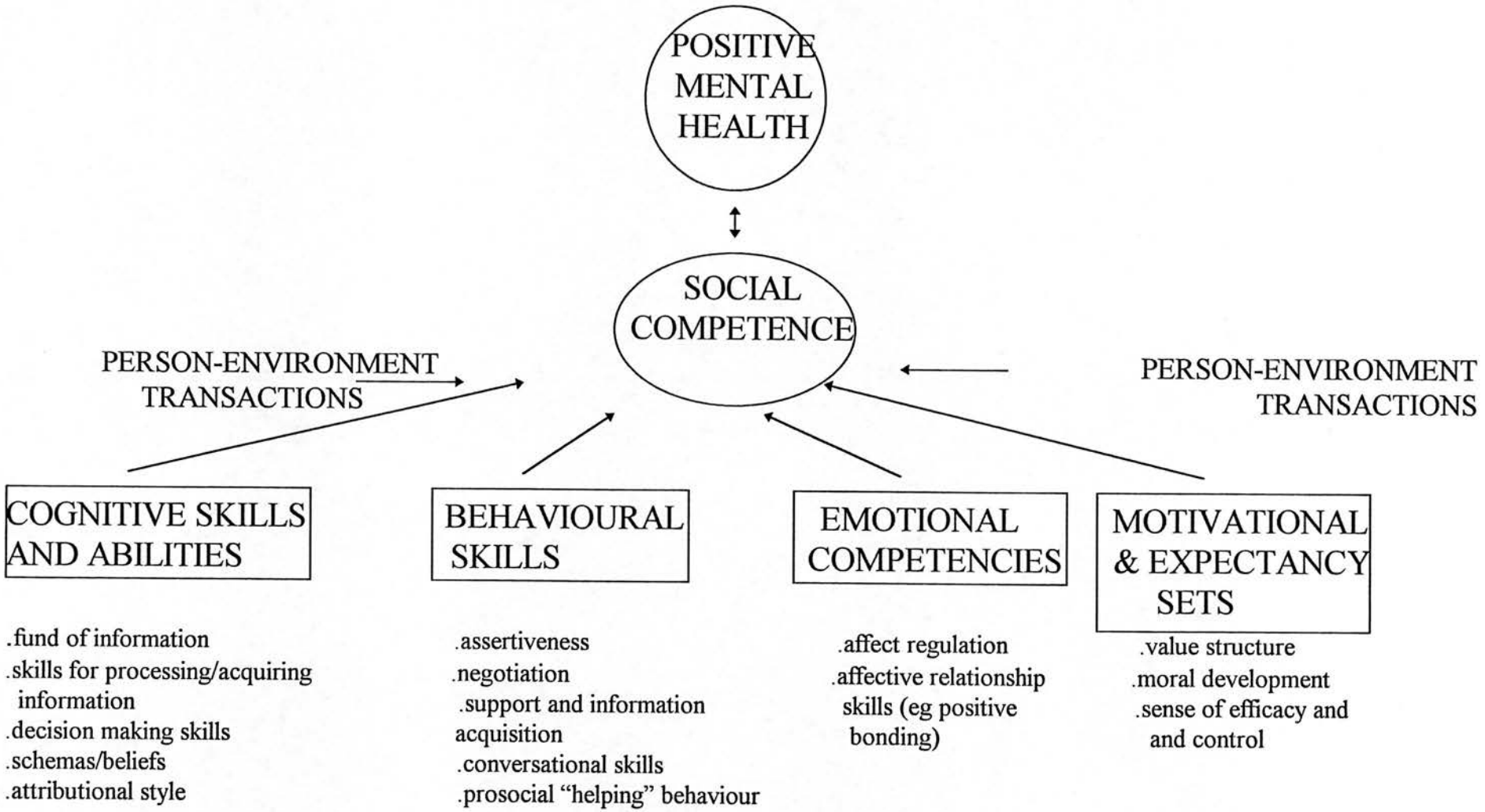
    d. Motivational and expectancy sets

2. The importance of how the behaviours that are produced "fit" the context of the environment in which they are displayed. Therefore, a behaviour or skill can only be seen as being adaptive if it is valued as such by the person's culture and environmental circumstances.

3. The model proposes a direct relationship between social competence and positive mental health such that each are seen as distinct entities but have important influences on each other.

(see Figure 3 for diagramatical representation of the model)

FIGURE 3 -THE QUADRIPARTITE MODEL OF SOCIAL COMPETENCE (FELNER ET AL 1990)



3.2.1 Cognitive skills and abilities

The acquisition of cultural and social information is an important part of the developmental process and in Felner's model is seen as being a critical part of successful functioning. This type of information may be imparted through a number of sources including family and school most saliently but also peer influences, other adults and the media. It is proposed that in children who do not display adaptive behaviour that some of these sources have failed to transmit the relevant information, for example, the abilities and skills required to manage school, the rules of society.

Wilson (1987) noted that the absence of adaptive role models both in the family and in the neighbourhood may prevent appropriate information being learned which is important for success later on in life.

Decision-making abilities or problem-solving skills are also considered to be an important area of social competence. The requirements for good problem-solving and the deficits that can occur in children who display aggressive behaviour have been discussed in some length in Section 3.1. Felner et al (1990) also include within this area "impersonal" problem-solving skills which relate to how well a person can solve everyday problems, for example, in schoolwork and then later on in life with health and finances.

Information-processing is a third main area within cognitive skills that again has been discussed in some length in Section 3.1. Felner et al also stress the

importance of underlying cognitions, beliefs and attributions which will form the basis for the individual's views about themselves, others and the world (see Section 3.3).

Goetz and Dweck (1980) found that attributional patterns may also exert considerable influence on the social behaviour and adaptation of young people i.e how events are viewed by the person. Similarly, Abramson, Metalsky and Alloy (1989) noted individuals who have an expectation that positive events will not occur and/or negative events will, are more susceptible to feelings of hopelessness and depression.

When considering cognitive skills and abilities the environmental context is critical. For example, significant acute events and/or prolonged exposure to certain experiences (family conflict, violence, abuse) will influence the formation of underlying cognitive schemas and attributions in young people. Certain beliefs and attributions may also be reinforced by significant, valued others in a child's life so increasing the likelihood of them being maintained.

3.2.2 Behavioural skills

It is known from previous social learning literature (e.g., Rotter, 1954) and from the coping literature (e.g., Lazarus and Folkman, 1984) that the better the range of behavioural skills a person has within their repertoire, the greater the likelihood that they will cope better with the demands of various situations.

If a person wishes a certain outcome to occur in a situation, then they are going to have to select a behaviour that will achieve this; but they must also know how to enact this behaviour appropriately. There are a multitude of specific behaviours that will be useful and effective in the numerous situations that arise. Some examples of these may be :-

- negotiation skills for achieving certain outcomes in a socially accepted way
- prosocial or "helping" behaviour
- conversational and other knowledge of social skills to initiate and maintain social interactions

3.2.3 Emotional Competencies

The regulation of emotional states, especially in situations which give rise to negative emotions, is the third major area of successful social competence. As DuBois and Felner (199) state " children and adolescents who find themselves unable to modulate their affective responses in such situations may be unable to implement previously acquired problem-solving strategies in an adaptive manner." (p134)

Also, within the area of emotional competency is the development of the skills required to form positive relationships with others,- for example, to develop trust in others, to be supportive to others, to understand different points of view and to be empathic. Researchers have postulated that the foundation for many of these skills will begin with the quality of the early attachment relationships with care-giving figures. Sroufe, Fox and Pancake (1983) found

preschoolers who had insecure attachment relationships before the age of 2 years old were regarded as displaying lower levels of independence, less effective problem-solving skills and less positive sociability towards peers.

3.2.4 Motivational and Expectancy Sets

Children and adolescents may be reasonably competent in the above areas but yet be said to fail to function well within society- i.e., still producing behaviours that can be regarded as unacceptable and antisocial. For any intervention programme to be successful with children who display problems with conduct and aggression, it must be determined if the behaviour is the result of deficits in social functioning capacity or due to lack of motivation to perform socially accepted behaviour.

Felner et al (1990) postulated 3 domains of motivation :-

1. The value structure of individual. This is likely to be influenced to a great extent by the "role models" in a person's life. For example, it may be the case that the adults in a child's life have experienced difficulties and failure in school and therefore do not value persistence in school as a requirement for later life. If these values are transmitted to the child either directly or indirectly eg through low involvement from the parents in schooling then there is an increased likelihood that the child will develop similar values.

2. Individual's level of moral development. It may be the case that there is a lack of developmental progress toward various higher levels of reasoning associated with increasing age leading the child to engage in behaviours that

are deemed inappropriate by society. Delays in moral development may also reflect cultural, gender or racial differences and this needs also to be taken into account.

3. Individual's sense of efficacy and control. A deficiency in the perception of ability to carry out acts that are important for behaving in a socially competent manner can influence adaptive efforts even when other skills are in place. Perry, Perry and Rasmussen (1986) found that aggressive children had higher perceived self-efficacy for performing aggressive acts and perceived it harder to inhibit acts of aggression that normal children. It was also found that aggressive children held stonger beliefs about the positive outcome of committing aggressive acts, for example, in gaining tangible rewards or reducing an aversive stimulus. Following on from this Boldizar, Perry and Perry (1989) found that aggressive children placed much value on

certain outcomes gained from aggressive acts, for example, achieving control over others. They also have less concern for the negative outcomes , for example, peer rejection, suffering by the victim or negative self-evaluation. Slaby and Guerra (1988) conducted a study into the beliefs about aggression in adolescent offenders. They noted that antisocial-aggressive individuals were most likely to view aggression as a legitimate response, that it increases self-esteem and it helps avoid negative self-images.

3.2.5 Person-Environment Transactions

When assessing overall social competence under these broad skills areas, the importance of the social environment cannot be underestimated. It may be that in certain environments a child responds and behaves appropriate to the expectations but when that child is placed in a different setting then deficits become apparent.

3.2.6 Relationship with Positive Mental Health

Felner et al (1990) view social competence as being a necessary but not sufficient component of positive mental health- i.e., some degree of social competence is expected to be necessary for positive mental health, for example, good self-esteem, but some individuals may possess social competence yet have poor mental health for other reasons.

The reciprocal nature of social competence and mental health is also considered within the model- i.e., mental health has an influence over social competence, for example, a low self-esteem is implicated in a lowered sense of self-efficacy for carrying out certain actions.

3.3 THE INVOLVEMENT OF COGNITIVE PROCESSES IN PSYCHOPATHOLOGY IN CHILDREN

In recent years there has been an increasing amout of research investigating the uses of Cognitive Therapy with children who display various forms of psychopathology. The theoretical viewpoint of Cognitive Therapy is the assumption that there is a link between behaviour, affect and cognitive processes and that changes in these cognitive processes may bring about

changes in both behaviour and affect. In terms of working with children, there are two main types of Cognitive Therapy, those which focus on teaching certain cognitive skills assuming that dysfunctional behaviour and affect are produced by deficits in cognitive processing, and those which focus on errors or distortions in cognitive processes and aim to modify these (see Spence, 1994).

Cognitive skills learning mainly has its origins in the early work of developmental psychologists such as Luria (1961) and Vygotsky (1962) who noted that as children mature, they begin to control their behaviour using verbal instuctions which at first may be spoken out loud but eventually become internalised. Meichenbaum (1975) has used this developmental theory to develop self-instructional training for children, to help children who display inappropriate behaviour to learn self control techniques. Other researchers have developed similar packages based on the same ideas- for example, Spivack and Shure's (1974) problem solving approach.

In considering cognitive restructuring approaches, these have developed from the research into adult psychopathology. One main influence is that of Beck (1964) who considered the importance of maladaptive thoughts about the self, the world and the future to be maintaining factors in depression and anxiety disorders. A number of distortions, i.e biased interpretations of events, were seen to occur in a depressed or anxious person's thought processes which were felt to maintain their negative affect. Beck, Rush, Shaw and Emery (1979)

described a number of typical cogntive errors: overgeneralisation; selective abstraction; assuming excessive responsibility or personal causality, making predictions without sufficient evidence; self-referencing; catastrophising; and thinking dichotomously. A study by Lefebvre (1981) found considerable overlap between these errors and condensed this list to four reliably discriminative negative cognitive distortions which were :-

1. catastophising - anticipating the outcome of an experience or event will be a catastophy or misinterpreting a past event as catastrophic.

2. overgeneralising - assuming the outcome of one experience will apply to all similar experiences in the future.

3. personalising - taking personal responsibility for negative events or interpreting such events as having a personal meaning.

4. selective abstraction - selectively attending to negative aspects of experiences.

Cognitive Therapy would seek to modify these distortions so bringing about positive change.

As Beck has highlighted in his work, there are a number of different levels of cognition that must be addressed. This is illustrated in a model by Stark, Rouse and Livingstone (1991) in which three levels are noted :-

1. Cognitive products - these are the various thoughts or images that pass through an individual's stream of consciousness.

2. Schemata - these are regarded as being more underlying stable structures that account for the consistency seen in an individual's thoughts, behaviour and affect and they have an important role role in the storage and organisation of incoming information. Therefore, these underlying schemata will influence how a person perceives certain events and what they remember.

3. Cognitive operations - these are the processes involved in transforming the information into cognitive products and may include attention, memory and perception.

Therefore, cognitive schemata influence the way information is processed via cognitive operations which in turn influence the cognitive products that are generated. Deficits or distortions may occur at various levels resulting in maladaptive behaviour and affect.

3.3.1 The Evidence for Cognitive Processing Difficulties

Depression in Children :-

In terms of cognitive skills deficits, depressed children have been reported to exhibit deficits in interpersonal problem-solving skills (Sacco and Graves, 1984), deficits in self control strategies and have more negative self-evaluations (Kaslow, Rehm and Siegel, 1984). Similar to adults, depressed children tend to have a negative view about themselves, the world and the future. They produce a higher number of cognitive distortions, for example, catastrophizing, overgeneralising and personalising (Leitenberg, Yost and Carroll-Wilson ,1986).

Anxiety :-

Anxious children also exhibit higher rates of cognitive errors similar to those found in depressed children (Leitenberg et al 1986). Prins (1985) found that they anticipate failure in future performance of tasks and are fearful of negative evaluations by others. Kendall and Chansky (1992) found that, in anxiety-provoking situations, anxious children attempt to repeat reassuring phrases to themselves; however, their way of doing this often exacerbates the anxiety and is ultimately unhelpful.

Behaviour Problems :

For such difficulties as ADHD and aggression, the main focus has been on cognitive skills deficit models. For example, ADHD children have been shown to have difficulties with self-regulation, problem solving , self control (e.g., Douglas, 1988 , Hindshaw and Erhardt, 1991). They may also have poor social perspective taking skills (Chandler 1973). Aggressive children show similar deficits.

Joiner and Wagner (1995) note in a review article that there is a paucity of research focussing on the presence of cognitive distortions in diagnoses other than depression including conduct disorder. Some of the few studies have compared groups of children and adolescents with depression and conduct disorder, finding that personalising errors predicted internalising but not externalising problems (Panak and Garber, 1992 ; Robinson, Garber and Hilsman, 1995). Messer, Kempton, Hasselt, Null and Bukstein (1994) found

that adolescents with internalising problems had a stronger tendency to make overgeneralising errors than those with externalising problems. However, both these studies did not utilize a normal control group. One study which did use a control group was that of Quiggle, Garber, Panak and Dodge (1992) who found that both depressed and aggressive children selectively attend to hostile cues but only depressed children displayed stronger tendencies to personalise negative events. Leung and Wong (1998) attempted to further examine the issue of whether or not cognitive distortions are present in both internalising and externalising problems and found that cognitive distortions seem to be mostly associated with internalising problems. However, they note that the method they used to assess cognitive distortions was the Children's Negative Cognitive Errors Questionnaire (Leitenberg et al, 1986) which was developed specifically to investigate depression in children, so is likely to be sensitive only to cognitive distortions associated with internalising and not externalising problems.

Recent work by Beck and Freeman (1990) in considering personality disorders has highlighted the specificity of dysfunctional schemas (resulting in different types of cognitive errors) for different disorders. For example, in persons with antisocial personality disorder, their view of the world is often of a hostile, unjust place in which the protection of self-interests is a priority. These, then, are very different underlying schemas from those reported by depressives. From this point of view, it is therefore useful to consider what cognitive distortions, if any, may be present in children with conduct disorder.

3.3.2 The Assessment of Cognitive Processing Difficulties

A variety of methods have been developed to assess the different levels of cognitive processing. Questionnaires such as the Children's Cognitive Assessment Questionnaire (Zatz and Chassin, 1983), the Children's Cognitive Error Questionnaire (Leitenberg et al, 1986), or the Cognitive Triad Inventory (Kaslow, Stark, Printz, Livingstone and Tsai, 1992) have proved useful in assessing cognitive errors in depression and anxiety. Other techniques such as thought monitoring i.e recording thoughts in response to specific situations (e.g., Stark, 1990) have also been utilised. A similar method is thought listing which involves exposing the child to a relevant event and asking them to state exactly what they were thinking during and after the event (e.g., Prins, 1986). To facilitate this process, researchers have used cartoon drawings with "thought bubbles".

In the consideration of more underlying stable structures, some measures have been developed; for example, KASTAN Children's Attributional Style Questionnaire (Kaslow, Tanenbaum and Seligman, 1978, as cited in Spence, 1994) and the Hopelessness Scale for Children (Kazdin, Rodgers and Colbus, 1986). Both of these measures examine specifically thinking styles rather than thinking errors.

3.4 THE PRESENT STUDY

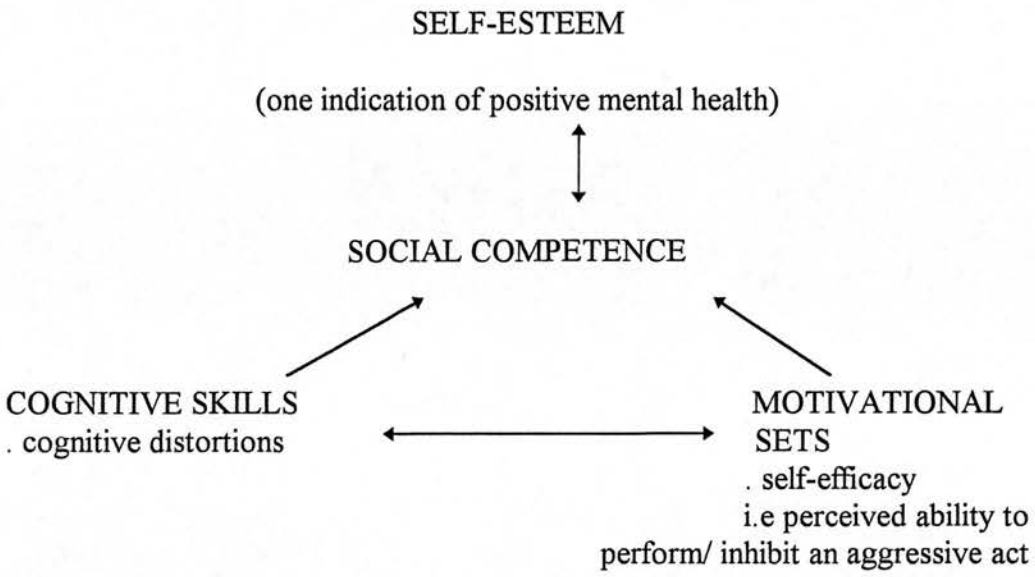
From the work of researchers such as Dodge, there is much evidence that socio-cognitive factors are a key consideration in developing our understanding

of the mechanisms by which the mutiltude of risk factors associated with conduct disorder actually work to produce the disorder. For example, a known risk factor for later aggressive behaviour in children is harsh parental discipline (see p 21) and a study by Weiss, Dodge, Bates and Petit (1992) indeed found a significant effect between these two even when controlling for socio-economic status, child temperament and marital conflict. However, they also found that this link is mediated by the development of maladaptive social information processing patterns in children who had experienced harsh discipline.

From the work of Beck (1963, 1964), the role of faulty cognitive processes in the maintenance of various types of psychopathology has become clearer, although within the literature concerning children the focus has been on depression. There is then a recognised need to consider the role of cogntions within other childhood psychological disorders, especially within conduct problems.

As well as drawing on the the cognitive model of psychopathology, this present study also utilises the model described by Felner et al (1990) on p53 which links together a number of factors, including cognitive factors that relate to social competence. The present study attempts to explore the relationship between two variables within the four core components of Felner's model- i.e., cogntive distortions and self-efficacy. It also attempts to relate these to a third variable - self-esteem which is seen as an important aspect of positive mental health. Based on the original diagram used by Felner to describe their model,

the following is a simplified representation of the proposed relationships to be explored :-



There are therefore two main aims to this study :-

1. To attempt to explore in further detail whether or not cognitive distortions are present in a sample of children described as having conduct disorder.

2. To attempt to explore the relationship between cogntive distortions, perceived self-efficacy for commiting or inhibiting an aggressive act and self-esteem as described by the above model.

No measures specifically investigating cognitive distortions in conduct disorders were found and other questionnaire-based measures examining this area were noted to be biased towards depressed subjects. It was, therefore, decided that a measure specifically developed for this study would be useful. Previous research has highlighted that scenario-based questionnaires are useful

for attempting to elict children's cogntions (e.g., Weiss et al ,1992, Quiggle et al, 1992). It was felt that children may at times find it difficult to relate to scenarios presented to them in form of questionnaires, so it was decided to present them on a video. This method was also used in the study by Weiss et al (1992). A further decision was made to ask only one or two open-ended questionnaires after each scenario to allow the children to give fairly unrestricted responses, and these would be recorded verbatim. This method is based on the thought-listing technique which exposes a subject to a relevant event and asks them to relate specific thoughts immediately before, during or after the event. In a review on this technique, Cacioppo, von Hippel and Ernst (1997) give a number of reasons why thought-listing is a useful way of tapping in cognitions. For example, the thought-listing technique can be used when there are no predetermined ideas about the cognitions that may be relevant; no assumptions are made about the individual's motives or causes for the responses produced and that the responses produced do not require the subject to recall past events but are occurring within their current stream of consciousness. The main assumption of the technique is, as Cacioppo et al (1997) note :-

"the psychological significance of an individual's thoughts and feelings, as well as the underlying cognitive processes, can be examined by content analyzing the individual's reported thoughts, ideas, images and feelings." (p 929)

Thoughts listed may give some idea of how a person views the world, his/her coping strategies in managing various events, and perhaps an insight into more stable, underlying cognitive structures.

As the measure for investigating cognitive distortions was specifically developed, it is important to state from the outset, that the nature of this study was exploratory and results obtained were interpreted with caution.

Following on from the aims of this study, the specific hypotheses to be considered were :-

In relation to cognitive distortions :-

1. Children with a conduct disorder will produce more cognitive distortions than normal children, i.e., their interpretations of external events will be biased in some way.

This hypothesis is based on the research linking the production of cognitive distortions with various types of psychopathology in children (see Section 3.3.1 p64)

2. a) Children with conduct disorder will produce cognitive distortions that are specific to the disorder.

This hypothesis is in line with recent studies indicating the specificity of various cognitive distortions and dysfunctional schemas for different disorders (e.g., Ambrose and Rhodes, 1993 ; Schmidt, Joiner, Young and Telch, 1995).

b) Children with conduct disorder will also produce cognitive distortions that reflect the types described by Beck et al (1979) that are seen to occur in other psychological disorders.

In relation to other variables :-

3. On a measure of self-esteem, children and adolescents with conduct disorder will report lower levels of self-esteem than normal children in accordance with results from other studies (e.g., Renouf, Kovacs and Mukerji, 1997)

4. On a measure of self-efficacy, children with conduct disorder will report :-

a) that it is relatively easy for them to perform acts of aggression, and

b) that it is relatively hard for them to inhibit acts of aggression, in comparison with normal children.

This is in accordance with results obtained from a study by Perry, Perry and Rasmussen (1986).

It is also intended to consider the relationship between all three of these variables in accordance with Felner et al's model (1990).

The next section now describes the experimental design that was used to test the above hypotheses.

METHOD

This study was passed by the Joint Ethical Commitee, Grampian Health Board.

4 PARTICIPANTS

The participants in the experimental condition were 23 children and adolescents described as having conduct disorder as defined by ICD-10 classification (see Appendix 3). A number of sources were contacted in order to access as many conduct disordered children as possible, for example, outpatients to both a Child Psychology and Child and Family Psychiatry Department, an inpatient child psychiatry unit, social work run intensive treatment (IT) groups, a local Barnado's project and finally schools specifically for children with severe behavioural problems. The most forthcoming of all of these in terms of providing numbers for the study were the special schools.

The control group consisted also consisted of 23 children and adolescents. The majority of these were accessed through schools in the locality which were situated in socially disadvantaged areas. This was in attempt to match the samples for social class. Due to lack of time, however, some of the control group came from other sources.

Attempts were also made to match the two groups in terms of age and gender. The demographic details are summarised below :-

Table 1 - Age Means, Standard Deviations and Ranges of the Two Groups

	Mean	S.D.	Range
Experimental Group	12.9	1.27	10-15 years
Control Group	12.3	1.48	10-14 years

The age means and ranges of the two samples were reasonably equivalent.

Table 2 - Gender Distribution of the Two Groups

	Males	Females
Experimental Group	23	0
Control Group	15	8

As can be seen from the above table, the experimental group consisted of all boys. It was intended to have a mixed gender group but no girls with conduct disorder were put forward. Also, finding boys, within the time limit, in deprived areas who were not regarded as displaying behaviour problems was problematic so some girls had to be included in the sample. Another reason why girls were included in the control group was that latterly, the two groups were being studied simultaneously and it remained uncertain whether there would be any girls in the experimental condition.

Numbers from Sources :-

Experimental Group :-	Special schooling (residential)	- 18
	Special schooling (day)	- 3
	Child Psychiatric Day Unit	- 1
	Child Psychiatry Outpatient	- 1
Control Group :-	Schools in disadvantaged areas	- 15
	Other	- 8

Academic Abilities

Attempts were made to match the two group on academic ability. The British Picture Vocabulary Scale (described more fully on page 86) was used as a quick screening measure to exclude any children falling within the low ability range or borderline range of learning difficulties. This meant that the children included in the study had quite a wide range of abilities. It would have been better to have had a tighter range of academic abilities (e.g., just average ability) but due to difficulties recruiting subjects this was not possible. The following table summarises the BPVS means in the two groups.

Table 3 - British Picture Vocabulary Scale Means, Standard Deviations and Ranges

in the Two Groups

	Mean	S.D.	Range
Experimental Group	10.3	0.95	9.1-13 years
Control Group	11.7	1.88	9.1-16.1yrs

As can be seen from the table above, the experimental group scores on the BPVS generally lagged behind their chronological ages. The control group scores were also slightly behind their chronological ages but the range was much wider.

Features of the Experimental Group

The schools also allowed access to each of the children's files which provided a large amount of information about the types of behaviours each displayed, family and school background ,academic abilities and previous input from professionals. This information is summarised in the form of tables in Appendix 1.

The most common features were as follows :-

Types of behaviour problems - defiance (100%); disobedience (100%); temper tantrums (100%); physical aggression (87%); verbal aggression (87%) and disruptive behaviour (100%).

Other frequently occurring difficulties were - poor peer relations (70%); attention problems (43%) and impulsivity (43%).

Background features - inconsistent parenting (65%); single parent family (43%); interparental violence (35%).

Professional input - social work (100%); educational psychology (100%) ; social work-run treatment groups (52%).

Academic abilities - average ability (48%); low average with specific learning difficulties (43%).

Time of onset - 96% of the sample had behaviour problems from early on in their lives.

In considering the numbers of participants in this study, the power of the experiment was examined, i.e. the probability of correctly rejecting a false null hypothesis. No power analysis was calculated but Cohen (1992) suggests that for a large effect size using the .05 level of significance, sample sizes should be around 26.

5 MEASURES

5.1 Rationale for choice of measures :-

A number of questionnaires that were already developed were cited as perhaps being useful for the study and the authors of these measures contacted (eg Leitenberg et al's Cognitive Error Questionnaire; Kaslow et al's Cognitive Triad Inventory). However, only questionnaires relating to self-efficacy were received, i.e Self-Efficacy Questionnaire and Outcome Expectations Questionnaire (Perry, Perry and Rasmussen, 1986) and Outcome Values Questionnaire (Boldizar, Perry and Perry, 1989). As perceived self-efficacy for committing acts of aggression had been noted as an important variable in the actual production of such behaviour, it was decided that these measues would be used in the present study.

All of these measures were very lengthy so it was decided that shortened versions of two of them would be used. The two being decided via a small pilot study beforehand. Around five children were given these measures (accessed from children currently attending a Child Psychology Department for reasonably minor difficulties eg phobias). From this, it was decided that the Self-Efficacy Questionnaire could be carried out fairly quickly and was readily understood by the children. The other two proved rather lengthy (although shortened to only include two scales out of the original six) and both the scenarios and the response choices were rather wordy, proving occasionally

difficult for the children to understand (e.g., children asking for parts to be repeated, querying exactly what they were supposed to do.)

As no questionnaire was found which specifically tapped into the thoughts of conduct disordered children, a measure was devised which attempted to fulfil this purpose. The theory behind this measure is described in Section 3.4 (p67) and a fuller description of the contents of it are included further on.

Self-esteem, as an aspect of positive functioning and to consider its relationship with both self-efficacy and cognitive distortions was measured using the Harter Self-Perception Profile for Children (1985). This taps into various dimensions of self-esteem, has good reliability and validity and standardised scores from a population of Scottish school children have been derived by Hoare, Elton, Greer and Kerley (1993).

Finally, it was considered useful to include a quick, screening measure of academic abilities in order to screen out children below a certain ability level (as described earlier). As the ability range within the sample was quite wide it was also decided to consider the effect it may be having on the other measures. The British Picture Vocabulary Scale - short form (Dunn and Whetton, 1982) was used. This gave a reasonable estimate of one area of academic ability.

Attention and concentration difficulties are often a part of conduct disorder so the measures included in the study were considered carefully in terms of relatively quick completion and being easily understood.

5.2 Description of the Measures Investigating the Three Variables :-

1. A shortened version of the Self-Efficacy Questionnaire (Perry, Perry and Rasmussen 1986)

This measure was designed to examine perceptions of self-efficacy. The original questionnaire consisted of 46 items, each describing a social situation and requiring the subject to indicate his/her ability to perform a specified behaviour in that situation. Children were asked to pretend that what was described in each scenario was happening to them and then to indicate how easy it would be for them to perform a specified behaviour by circling one of four response choices:-

HARD hard easy EASY

The questionnaire used in this study consisted of 16 items taken from the original. Eight of these asked about perceived self-efficacy for performing aggressive acts both verbal and physical and eight tapped perceived self-efficacy for inhibition of aggressive acts, again both verbal and physical. These scales were chosen as it was felt they would provide the most useful information for this study.

Scoring :

In scoring the responses, values of 1,2,3 and 4 were assigned respectively to the response options above. The higher the score, the higher the perceived self-efficacy for that domain. Cronbach's alpha coefficients of internal consistency were 0.86 for the scale measuring self-efficacy for aggression and 0.73 for the scale measuring self-efficacy for inhibition of aggression. The original questionnaire was tested on 160 children between the ages of 9.8 and 12.7 years old.

As the original questionnaire was American, for this study one word was changed to make it more appropriate for Scottish children. This was :-

- "soccer" changed to "football"

2. A shortened version of the Self- Perception Profile for Children (Harter 1985)

This is a measure of self-esteem which considers this concept is made up of specific domains. The original questionnaire is made up of 36 items measuring global self-esteem as well as five separate subscales - scholastic performance, social acceptance, athletic competence, physical appearance and behavioural conduct.

This questionnaire used 12 of the items from the original. Six items comprised the behavioural conduct scale and the other six made up the

global self-esteem scale. Again these scales were chosen for the usefulness of information they would provide to this particular study.

Scoring :-

Within each subscale, three of the items are worded so that the first part of the statement reflects high competence or adequacy and the other three are worded such that low competency is presented first. The child has to decide which part of the statement describes best how they feel about themselves and then decide whether it is "sort of true for me" or "really true for me". Values of 1,2,3 and 4 are assigned to the response choices such that the higher the score the higher the sense of adequacy or competency in that area. Cronbach's alpha reliability values for the subscales are 0.71 for the behavioural scale and 0.84 for the global self-esteem scale.

3. A specifically developed measure for the assessment of cognitive distortions.

This measure was aimed at investigating the responses produced by conduct disordered children and control children when presented with certain scenarios which may arise in the classroom, with peers or at home with parents or siblings. These scenarios were designed to represent occasions when there was a potential for problematic behaviour to occur. The scenarios were chosen partly on the basis of previous studies utilising scenario-based measures, for example, Dodge,

McClaskey and Feldman (1985) reported that stories with themes of provocation or peer rejection activated biased cognitive interpretations in aggresssive children. Other themes in this present study came about through discussion with experienced Clinical Child Psychologists about what they regarded as difficult situations for children with conduct problems. In order for the participants in the study to be able to relate more easily to the situations, in was decided to present the scenarios to them on video. A local children's drama group was contacted and they were videoed enacting each scene. The average length of time of each scenario was 45 seconds. There were ten scenarios altogether with four themes which were as follows:-

Three scenes centring around the theme of the main character being thwarted in obtaining a particular goal :-

1. In class, due to incorrect completion of school work, the main character is required to stay in over their break and complete the work. (scenario 1 on the video)
2. In the playground, the main character wishes to join a group of peers playing a game but is told he/she cannot. (scenario 5 on the video)
3. At home, the main character is asked by mother to refrain from playing a computer game and get on with their homework (scenario 9 on the video)

Three scenes centring around the theme of provocation :-

1. In class, the main character is stuck with some school work and wishes the teacher's help, however she is busy with other pupils and keeps him/her waiting. (scenario 7 on the video)

2. In the playground, the main character is being teased by peers. (scenario 8 on the video)

3. At home, the main character arrives home to catch his/her sibling taking things from his/her bedroom without asking. (scenario 3 on the video)

Three scenes centring around the theme of the main character getting the blame for a particular incident :-

1. In class, other children ask the main character some questions but while asking them to be quiet he/she is the one that gets talking by the teacher. (scenario 4 on the video)

2. In the playground, during some rough play, someone's jumper gets ripped and the main character is blamed. (scenario 2 on the video)

3. At home, the main character is watching TV with a sibling but wishes to watch something different. A fight ensues and when the mother comes in she blames the main character only. (scenario 6 on video)

One scene which is ambiguous :-

The main character is walking along a corridor in school when another child unknown to them is running the other way and accidently bumps

into him/her causing them to drop their books. (scenario 10 on the video)

After each scenario was shown to the participants, the video was stopped and the child asked :-

- What do you think would be going through the his /her mind (indicating the main character) right at this moment ?
- Would the same kind of thoughts be going through your mind if you were in the same situation as that boy/girl ?

The responses given by each participant were recorded verbatim. The two questions asked are based on the question-format used in the Separation Anxiety Test (Wright, Binney and Smith, 1995).

Scoring :-

It was decided to categorise the responses given by each child. However, no actual categories were decided on beforehand. This is in accordance with qualitative methods of analysing data which sets no predetermined ideas about particular categories to fit the data into but derives them from the actual data. As Seidel and Kelle (1995) report the purpose of categorisation is to note commonly occurring phenomena within the data and how these fit together into patterns, examining for commonalities and differences.

The actual categories used are described in the Results section. The theoretical framework for categorisation was the cognitive model of psychopathology i.e., behaviour and affect are influenced by cognitive processes. The responses were categorised by the author and another independent rater.

The questionnaire are included in Appendix 4.

5.3 Description of Screening Measure :-

The British Picture Vocabulary Scale - Short Form (Dunn and Whetton, 1982)

This measure tests the acquisition of English vocabulary and is not a comprehensive test of general intelligence. However, it is regarded as being a useful measure as the acquisition of vocabulary has been shown to be important for school success and is an important factor in intelligence measures. The short form comprises of 32 items although the starting point is determined by the subject's chronological age. A series of plates with four pictures on each is presented to the subject, and along with each plate a word is given . The subject is required to point to the picture or give the picture number that the word describes. This is continued until a ceiling is reached i.e six consecutive responses containing four errors.

6 - PROCEDURE

The parents of the children who were considered for inclusion in the study, received information sheets about the study and consent forms (Appendix 2). If permission was given the children were included in the study. The majority of the children were seen within school time and the interviews were conducted in a quiet, comfotable room. For the children recruited from the Child Psychiatry Department, one was seen within the Day Unit and a convenient time was arranged to meet with the other child. Each child also gave their consent before taking part.

The study comprised of individual interviews with each participant lasting in total between 30 and 40 minutes. The British Picture Vocabulary Scale was administered first, then the Harter Self-Perception Profile, the Self-Efficacy Questionnaire and lastly the video was shown. For both the written questionnaires, each statement was read to the child in an attempt to minimise the effect that reading difficulties may have on the results.

RESULTS

The results were analysed using Statistical Package for the Social Sciences (SPSS)- 6.0.

7- EXPLORATORY DATA ANALYSIS

Exploratory data analysis was carried out on the sample scores from both groups on the Behavioural Conduct and Global Self-Worth subscales on Harter's Self-Perception Profile; on the Aggression and Inhibition of Aggression subscale on the Self-Efficacy Questionnaire; and on the British Picture Vocabulary Scale. This was done in order to check that the distribution of scores were reasonably normally distributed and to look for outliers.

Histograms of the various distributions were carried out (see Appendix 5). The skewness values for the two groups are as follows :-

Table 4 - Skewness Values for the Measures in the Experimental Group

Subscale	Skewness Value
Behavioural Conduct	0.663
Global Self-Worth	0.037
Aggression	-0.014
Inhibition of Aggression	0.225
BPVS	1.377

Table 5 - Skewness Values for the Measures in the Control Group

Subscale	Skewness Value
Behavioural Conduct	0.137
Global Self-Worth	-0.389
Aggression	0.173
Inhibition of Aggression	-0.313
BPVS	0.974

It can be seen from the histograms and the skewness values that the distribution of the scores within each measure fall reasonably well within a normal distribution. Kolmogorov-Smirnov Goodness of Fit tests confirmed this with all the distributions. This indicates that the use of parametric tests is acceptable for these analyses.

Outliers :-

Box plots were carried out to check for outliers (see Appendix 5). An outlier was noted on the Behavioural Conduct subscale in the experimental group. As only one outlier was noted, it was decided to perform analyses on a fairly representative sample so excluding that one outlier from the analyses.

8 - SELF-ESTEEM

The "Behavioural Conduct" and "Global Self-Worth" scales on the Harter Self-Percerption Profile for Children, were used with both groups. The following means were obtained :-

Table 6 - Self-esteem Means for Both Groups

Subscale	Exp. Group Mean (SD)	Control Group Mean (SD)
Behavioural Conduct	2.1 (0.64)	2.8 (0.55)
Global Self Worth	2.4 (0.49)	2.95 (0.53)

In order to examine the differences between the two means a one-way analysis of variance was carried out on the above and the results were as follows :-

Table 7 - Results from the One-Way ANOVA on the Subscales of Self-Esteem

Subscale	Source	df	Mean Squares	F Ratio	Prob.
Behavioural Conduct	Between Groups	1	6.02	21.5	0.0000
	Within Groups	43	0.28		
Global Self Worth	Between Groups	1	2.78	10.8	0.002
	Within Groups	44	0.26		

The results indicate significant differences at the $p < 0.01$ level of significance between the conduct disordered group and normal control group on both the subscales of the measure of self-esteem.

(This level of significance was chosen as it somewhat decreased the chances of committing a Type 1 error)

As the Control Group had a number of girls included in the sample, it was decided to examine if gender was having any influence on the means in this sample. Independent t-tests were carried out within the control group and the results were as follows :-

Table 8 - Results from Independent t-tests on Gender Differences in the Subscales of Self-Esteem Within the Control Group

Subscale	Variable	Number of Cases	Mean	S.D.	t-value	df	2-tail Sig.
Behavioural Conduct	Female	8	2.77	0.59		21	0.835
	Male	15	2.82	0.54			
Global Self Worth	Female	8	2.96	0.62		21	0.947
	Male	15	2.95	0.49			

(95% confidence intervals)

There is no significant difference between the means of the males and females on either subscale of self-esteem. This means that in terms of these measures the control group is relatively homogeneous and the significant difference noted when compared with the experimental group is valid.

9- SELF-EFFICACY

The "Aggression" and "Inhibition of Aggression" subscales on the Self-Efficacy Questionnaire (Perry et al 1986) were used with both groups. The following means were obtained :-

Table 9 - Self Efficacy Means for Both Groups

Subscale	Exp. Group Mean (SD)	Control Group Mean (SD)
Aggression	24.7 (5.8)	16.2 (3.4)
Inhibition of Aggression	18.7 (3.7)	24.0 (3.5)

A one-way analysis was carried out on the above and the results were as follows :-

Table 10 - Results from the One-Way ANOVA on the Subscales of Self-Efficacy

Subscale	Source	df	Mean Squares	F Ratio	Prob.
Aggression	Between Groups	1	835.13	55.9	0.0000
	Within Groups	44	14.92		
Inhibition of Aggression	Between Groups	1	328.89	25.2	0.0000
	Within Groups	44	13.03		

The results indicate significant differences at the $p<0.01$ level of significance between the conduct disordered group and the normal control group on both the subscales on the measure of self-efficacy.

As with the analysis of self-esteem, the effects of gender was examined in the Control group using independent t-tests :-

Table 11 - Results from Independent t-tests on Gender Differences in the Subscales of Self-Efficacy Within the Control Group

Subscale	Variable	Number of Cases	Mean	S.D.	t-value	df	2-tail Sig.
Aggression	Female	8	14.5	2.3	-1.89	21	0.072
	Male	15	17.1	3.5	-2.16		
Inhibition of Aggression	Female	8	26.1	2.6	2.35	21	
	Male	15	22.8	3.4	2.56		0.029

(95% Confidence Intervals)

There is no significant difference between the means of the males and females on the Aggression subscale suggesting that in terms of this measure, this is a reasonably homogeneous group. On the Inhibition of Aggression subscale, there is a significant difference at the $p<0.05$ level. This suggests that the females in this group have tended to score higher on this measure than the males. The means on the Inhibition of Aggression subscale were re-examined with the girls excluded from the analyses. The results were as follows :-

Table 12 - Results from the One-Way ANOVA on the Inhibition of Aggression subscale (excluding females)

Subscale	Source	df	Mean Squares	F Ratio	Prob.
Inhibition of Aggression	Between Groups	1	161.26	12.3	0.0012
	Within Groups	36	13.08		

The results of this analysis indicate that there remains a significant difference ($p<0.01$) between the two groups on the Inhibition of Aggression subscale even when the girls are excluded from the analysis.

10- RESULTS FROM THE BRITISH PICTURE VOCABULARY SCALE

To examine the difference in the means on this measure, a one-way analysis of variance was computed and the results were as follows :-

Table 13 - Results from the One-Way ANOVA on the BPVS

Variable	Source	df	Mean Squares	F Ratio	Prob.
BPVS	Between Groups	1	21.13	9.54	0.0035
	Within Groups	44	2.21		

The results show a significant difference at the $p<0.01$ level of significance between the experimental and control groups on the BPVS - the measure of academic level. In order to examine whether the mixed gender in the control group was influencing the results in any way, the girls in this group were

excluded and the means in the two groups of boys compared. The results were :-

Table 14 - Results from the One-Way ANOVA on the BPVS (excluding females)

Variable	Source	df	Mean Squares	F Ratio	Prob.
BPVS	Between Groups	1	15.08	7.6	0.0091
	Within Groups	36	1.99		

The results, excluding females, still indicate a significant difference between the two groups ($p<0.01$) but there is more of a trend towards the difference not being significant at this level suggesting that the boys in the two groups are at reasonably similar levels of academic ability.

11- RELATIONSHIP BETWEEN SELF-ESTEEM AND SELF-EFFICACY

In order to examine the relationship between these two variables Pearson correlations were carried out between the four subscales and the following results obtained :-

Table 15 - Pearson Correlations of all the Subscales (Two-Tailed)

	Inhibition of Aggression	**Behavioural Conduct**	**Global Self Worth**
Aggression	r = -0.54*** (df -46)	r = -0.49** (df- 46)	r = -0.44** (df -46)
Inhibition of Aggression		r = 0.45** (df -46)	r = 0.38** (df -46)
Behavioural conduct			r = 0.59*** (df -46)

Note :- ** $p < 0.01$ *** $p < 0.001$

These results indicate significant relationships between the Aggression subscale and the Inhibition of aggression, Behavioural Conduct and Global Self-Worth subscales. These relationships are negative indicating the lower scores on one measure would mean higher scores on the other.

There are significant positive relationships between the Inhibition of aggression subscale and both the self-esteem subscales and there is a significant positive correlation between the two subscales of self-esteem. These relationships indicate that a high score on one measure means a high score on the other measure.

It was decided to consider the predictive value of one of the subscale variables - namely Global Self-Worth on the self-esteem measure. The question addressed was whether age, gender, academic ability (BPVS), subscales of self-efficacy and the other self-esteem subscale (Behavioural Conduct) predicted scores on the Global Self-Worth subscale.

Table 16 - Results of the Multiple Regression

Dependent Variable	Independent Variables	Multiple R	Adjusted R Square	Beta	Sig T
Global Self Worth	Age	0.63	0.30	-0.11	0.44
	Aggression subscale			-1.1	0.28
	Behavioural Conduct Subscale			0.48	0.0025**
	BPVS			-0.69	0.64
	Gender			-0.21	0.84
	Inhibition of Aggression subscale			0.47	0.64

Note : ** $p<0.01$

The results indicate that this analysis accounted for 30% of the variance. Of the six predictor variables, only one contributed significantly to the variance in the Global Self Worth subscale. This was the Behavioural Conduct subscale ($p<0.01$), i.e., the other self-esteem subscale.

This suggests that, although the Pearson correlation indicated significant correlations ($p<0.01$) between the Self-Esteem and Self-efficacy subscales, when other predictor variables are taken into account, the only significant predictive relationship is between subscale scores on the same measure.

It was decided to examine the predictive value of the Global Self Worth subscale excluding the Behavioural Conduct subscale from the analysis to see if this made any difference to the level of predictability of the other measures.

Table 17 - Results of the Multiple Regression (excluding Behavioural Conduct)

Dependent Variable	Independent Variables	Multiple R	Adjusted R Square	Beta	Sig T
Global Self Worth	Aggression	0.47	0.18	-0.33	0.047
	Inhibition of Aggression			1.24	0.221

This analysis shows that when the Behavioural Conduct subscale is excluded, the Aggression subscale is just significant at the $p<0.05$ level. The Beta value suggests that this a negative relationship, i.e., a high score on one measure would mean a lower score on the other. this suggests that there may be some relationship between self-esteem and at least this measure of self-efficacy but only around 18% of the variance is explained poiting to a high involvement of other factors accounting for the scores on the Global Self Worth measure.

12- COGNITIVE DISTORTIONS

12.1 Categorisation

Each response made by the child was categorised. The categories chosen were developed from examination of the data and were felt to account for the majority of the responses. The categories were as follows (for further details see Appendix 6) :-

- The response being an emotion , a behaviour (desire to carry out a certain action) or a cognition.

- The response being either positive or negative.

- The response being directed towards the self, directed towards others or non-directional (i.e no specified direction of either emotion or behaviour, for cognition this was seen to represent a general comment on the situation).

- How appropriate was each response according to the context scored on a 3 point scale :-

1- appropriate ; 2- slighty inappropriate ; 3- inappropriate

Each response was categorised by author and 1 independent rater (who watched the video beforehand).

For a selection of the responses and their categories in all 10 situations, see Appendix 6.

There were difficulties categorising some of the responses (some of these are noted in Appendix 6). The main difficulty with categorising some of the responses was that the response given incorporated more than one type of

response (e.g. an emotion and a cognition). For the purposes of the quantitative analysis, a decision was made about the main gist of the response and categorised accordingly.

As noted in the Method section, two questions were asked to each child after each scenario but the majority of children in the study gave in reply to the second question - "What would go through your mind in a similar situation?" - the same answer as in the first question. There were children who did give more than one response and this was incorporated into their first response.

12.2 Inter-rater reliability :-

For type (emotion, behaviour, cognition) - 89% aggreement

For positive/negative - 84% aggreement

For direction (self, others, non) - 74% aggreement

For appropriateness - 56% aggreement

Therefore, the "Appropriateness" scale is the least reliable which reflects the subjective nature of scoring on this measure. This suggests that in future research clearer guidelines on what is considered "appropriate responses" to certain situation should be identified beforehand to aid decision-making on this scale. Analysis of results using this scale were interpreted with caution.

12.3 Internal Reliability of Cognitive Distortions Measure :-

Cronbach's Alpha coefficients of internal consistency were computed for the two scales on this measure (situations 1 - 10). The results were as follows :-

- for type of response given (i.e emotion/ behaviour/ cogntion; positive/ negative; direction - self/ others/ non-directional) - 0.69

- for appropriateness of response - 0.52

These results suggest reasonable consistency in responding according to type but less so according to appropriateness.

12.4 Content Analysis

To examine patterns and trends within the data was collapsed in two different ways :-

1. Into the three themes of :-

- being thwarted from obtaining a certain goal (scenarios 1, 5 and 9)
- being blamed for a particular incident (scenarios 2, 4 and 6)
- provocation (scenarios 3, 7 and 8)

2. Into the three types of situation :-

- in the classroom, involving a teacher (scenarios 1, 4 and 7)
- with peers (scenarios 2, 5 and 8)
- at home involving siblings and a parent (scenarios 3, 6 and 9)

Scenario 10 - the ambiguous situation - was considered separately as this was felt to reflect a different type of situation.

12.4.1 Analysis of Responses Across Themes

For "Type" of response given, the results were represented graphically as follows.

[The category codes for the Bar Charts are as follows :-

ens - emotion / negative / self

eno - emotion / negative / others

eps - emotion/ positive/ self

end - emotion / non-directional

bno - behaviour / negative / others

bps - behaviour / positive / self

bnd - behaviour / non-directional

cns - cognition/ negative / self

cno - cognition / negative others

cps - cognition / positive/ self

cpo - cognition/ positive / others

cnd - cognition/ non-directional]

Figure 4 - Bar Chart comparing the frequencies of the types of response given in the Experimental and Control Groups in "Thwarted" situations

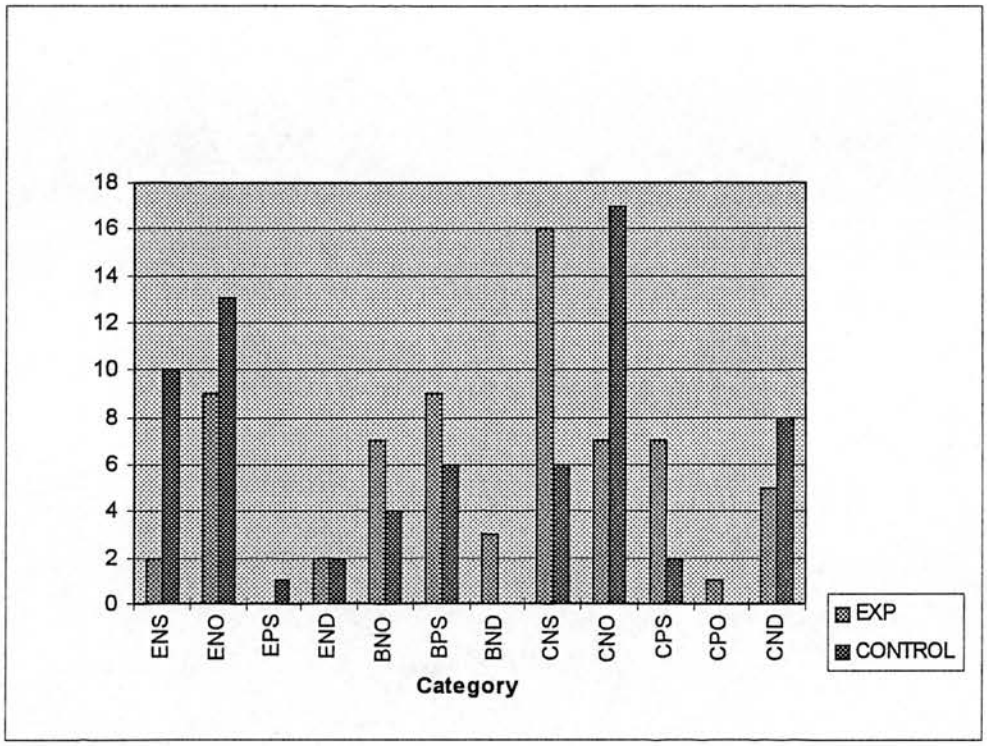


Figure 5 - Bar Chart comparing the frequencies of the types of response given in the Experimental and Control Groups in "Blame" situations

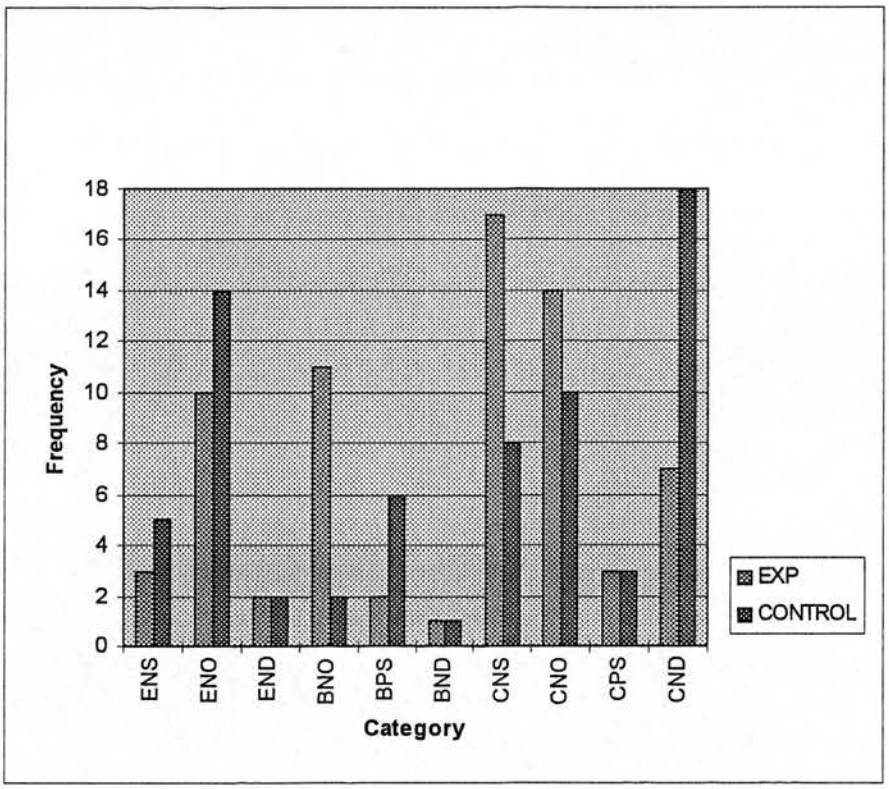
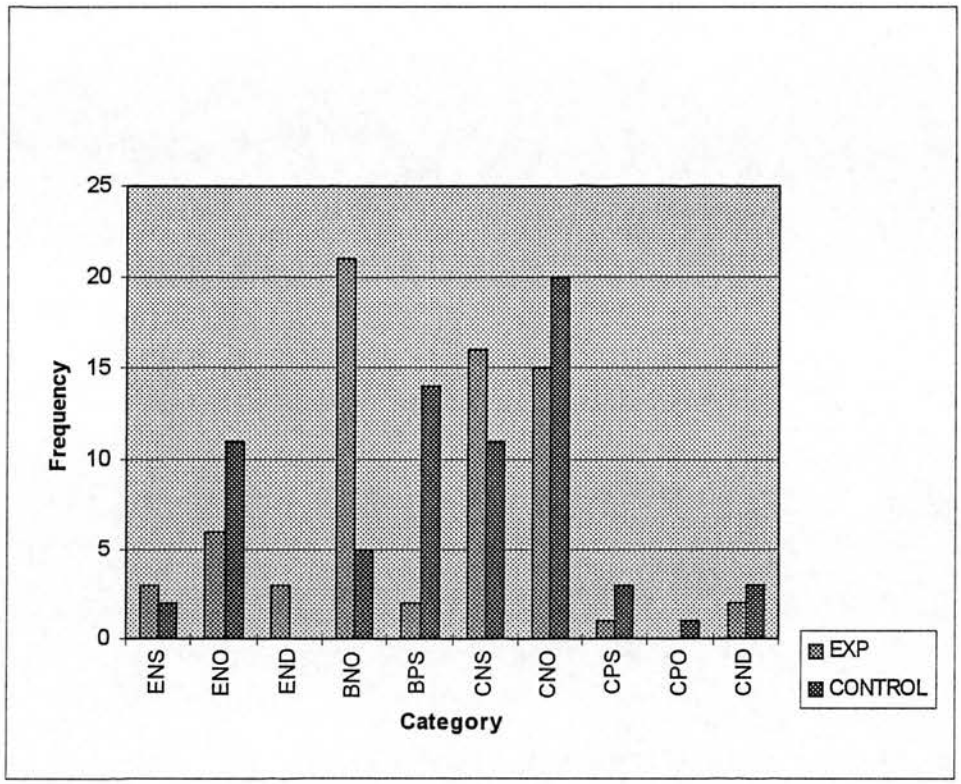


Figure 6 - Bar Chart comparing the frequencies of the types of response given in the Experimental and Control Groups in "Provocation" situations



Summary of Main Findings - Differences and Similarities

In "**Thwarted**" scenarios:-

There were more responses that were considered to represent negative emotions directed towards self in the Control group (10) than the Experimental Group (2).

Examples :-

"I am embarrassed as my friends saw me getting anwers wrong"

"I am annoyed with myself"

There were more responses that were considered to represent negative cognitions directed towards self in the Experimental group (16) than the Control Group (6).

Examples :-

"I should not have rushed my work"

"It's my fault - I shouldn't have been playing the game"

"They don't like me"

There were more responses that were considered to represent negative cognitions directed towards others in the Control group (17) than the Experimental Group (7).

Examples :-

"It is unfair of them to leave me out"

"They are not good friends"

"I'm in the huff with Mum"

Some similarities were also noted between the two groups. For example, both group produced similar numbers of negative emotions directed towards others (10 in the experimental group, 13 in control group).

Example :-

"I am annoyed/ angry with the teacher"

There were also similar, although small, numbers in positive behaviours towards self (9 in the experimental group, 6 in the control group).

Example :-

"I'll just get on with the work"

In "**Blame**" scenarios :-

There were more responses that were considered to represent negative behaviours directed towards others in the Experimental group (11) than the Control Group (2).

Examples :-

"I'm going to punch them"

"I'll have a fight with them"

There were more responses that were considered to represent negative cognitions directed towards others in the Experimental group (16) than Control group (8).

Examples :-

"He always gets to watch what he wants"

"Those other kids are getting me in the wrong"

There were more responses that were considered to represent non-directional cognitions in the Control group (18) than the Experimental Group (7).

Examples :-

"I think that is unfair"

"What is my Mum going to say"

Some similarities within this theme were noted in those regarded as negative emotions towards others (10 in the experimental group, 14 in the control group) and negative cognitions towards others (14 in experimental group, 10 in control group).

Examples :-

"I'm angry/ annoyed / in a bad mood with the others / my brother"

"It's unfair - I got the punishment but the others were talking more"

In "**Provocation**" scenarios

There were more responses that were considered to represent negative behaviours directed towards others in the Experimental group (21) than the Control Group (5).

Examples :-

"I'm going to get my brother back"

"I'll steal from my brother"

There were more responses that were considered to represent positive behaviours directed towards self in the Control group (14) than the Experimental Group (2).

Examples :-

"I'll go and find someone else to play with"

"I'll just get on with my work"

Some similarities within this theme were noted in those regarded as negative cognitions towards self (16 in the experimental group, 11 in the control group) and negative cognitions towards others (15 in the experimental group, 20 in the control group).

Examples :-

"I should have hidden my things from my brother"

"It's unfair of the teacher to help everyone else first"

To examine the differences between the two groups in terms of the frequencies in each category, chi-squares were carried out in the cells with reasonable sized numbers. The results were :-

Table 18 - Results from Chi-Squares Across the Three Themes

Scenario	df	Chi-Square Value
Thwarted	7	19.4**
Blame	5	15.8**
Provocation	4	21.8**

Note : **p<0.01

The results indicate significant differences between the numbers in the categories in the experimental and control groups in all three themes.

For "**Appropriateness**" of response, the results were represented graphically as follows :-

Figure 7- Bar Chart comparing the frequencies of appropriateness of response given in the Experimental and Control groups in the "Thwarted" situations

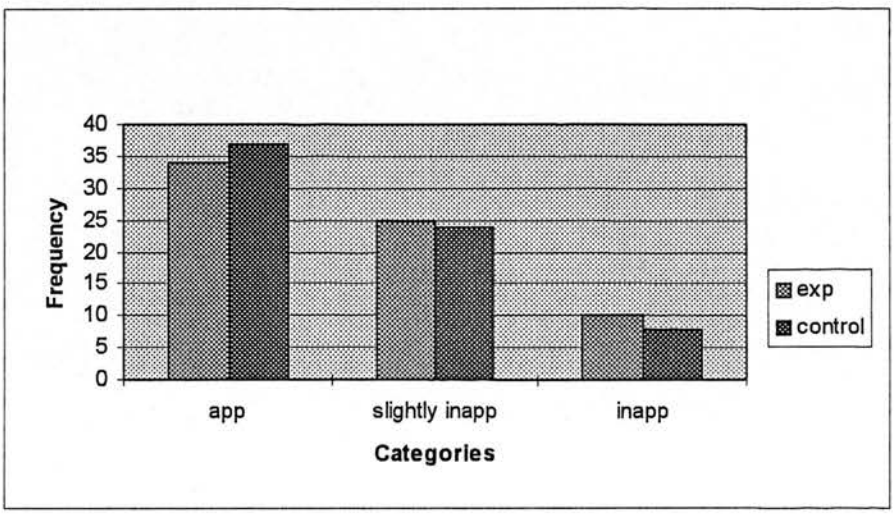


Figure 8 - Bar Chart comparing the frequencies of appropriateness of response given in the Experimental and Control groups in the "Blame" situations

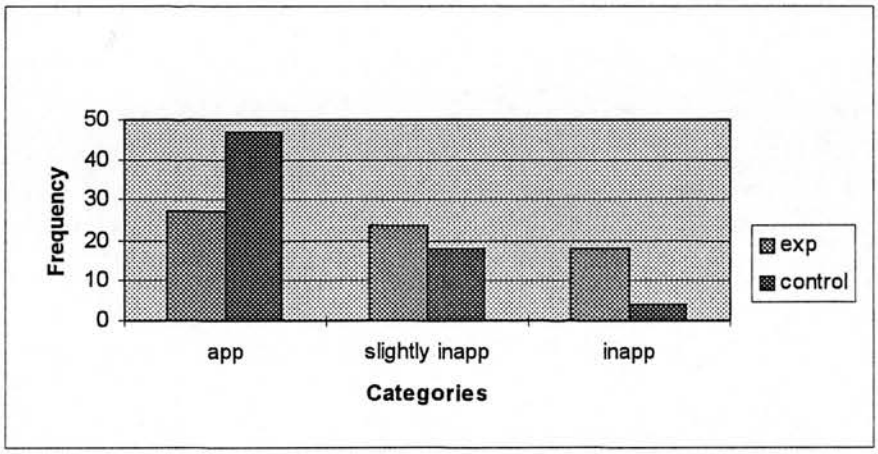
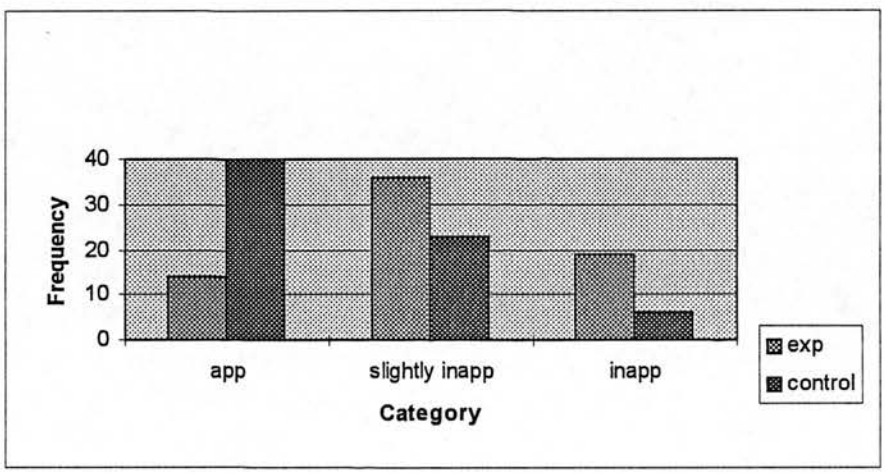


Figure 9 - Bar Chart comparing the frequencies of appropriateness of response given in the Experimental and Control groups in the "Provocation" situations



For the "Thwarted" scenarios, most of the responses made by the two groups were regarded as being appropriate or slightly inappropriate with almost equal numbers across the two groups. For "Blame" scenarios, more appropriate responses were noted in the control group with the majority of responses in the

experimental group regarded as slightly inappropriate or inappropriate. Similar results were found in the "Provocation" scenarios. However, as noted previously, categorising the responses according to appropriateness proved to be quite subjective so these results must be interpreted with caution.

12.4.2 Analysis of Responses Across Situation

For "Type" of response given, the results were represented graphically as follows :-

Figure 10 - Bar Chart comparing the frequencies of the types of response given in the Experimental and Control Groups in "Classroom" situations

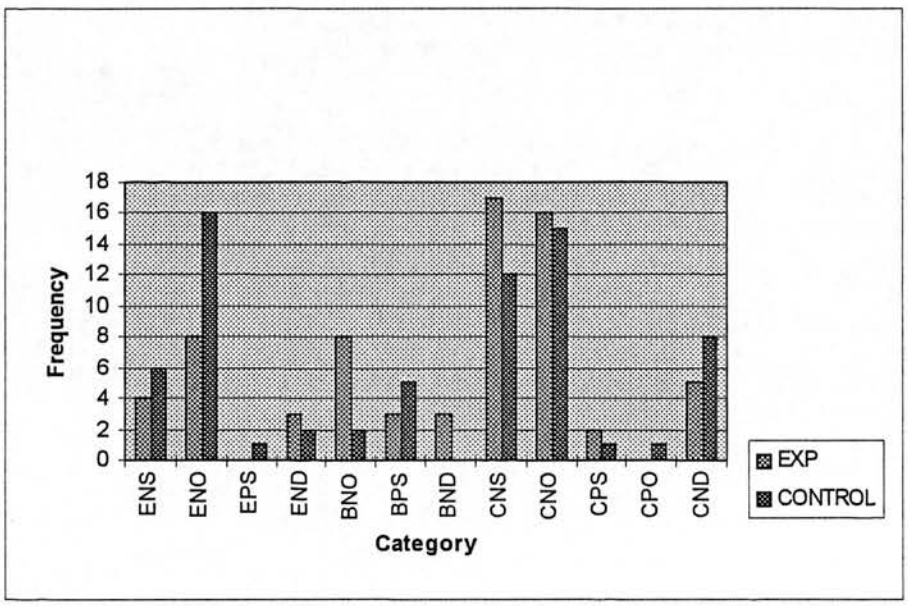


Figure 11 - Bar Chart comparing the frequencies of the types of response given in the Experimental and Control Groups in "Peer" situations

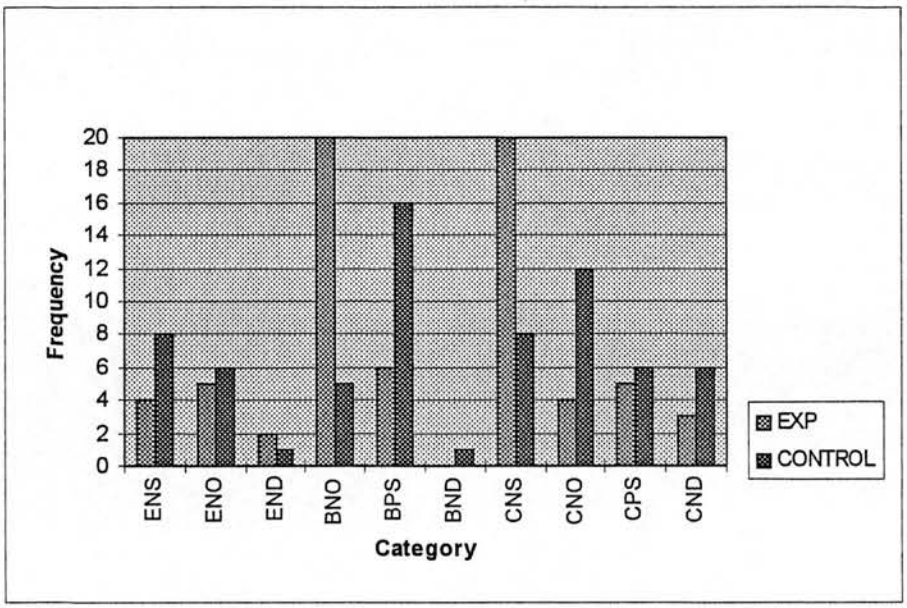
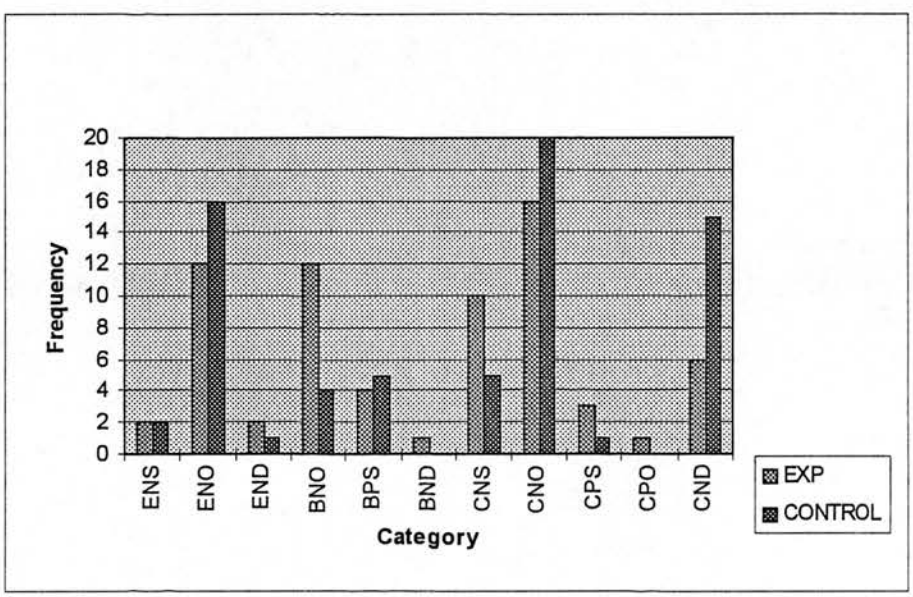


Figure 12- Bar Chart comparing the frequencies of the types of response given in the Experimental and Control Groups in "Home" situations



Summary of Main Findings - Differences and Similarities

In "**Classroom**" situations :-

There were more responses that were considered to represent negative emotions directed towards others in the Control group (16) than the Experimental Group (8).

Similarities were noted in responses labelled negative cognitions toward others (16 in the experimental group and 15 in the control group.

In "**Peer**" situations :-

There were more responses that were considered to represent negative behaviours directed towards others in the Experimental group (20) than the Control Group (5).

There were more responses that were considered to represent negative cognitions directed towards others in the Control group (12) than Experimental group (4).

There were more responses that were considered to represent positive behaviour directed to self in the Control group (16) than the Experimental Group (6).

There were more responses that were considered to represent negative cognitions directed to self in the Experimental Group (19) than in Control Group (8).

Similarities were noted in responses labelled negative emotions towards others (5 in the experimental group, 6 in control group) and positive cognitions towards self (5 in experimental group, 6 in control)- e.g. "I am better than they are playing football".

In "**Home**" situations :-

There were more responses that were considered to represent negative behaviours directed towards others in the Experimental group (12) than the Control Group (4).

There were more responses that were considered to represent negative cognitions directed towards self in the Experimental group (11) than the Control Group (5).

There were more responses that were considered to represent non-directional cognitions in the Control Group (15) than the Experimental Group (6).

Similarities were noted in the responses labelled negative cognitions towards others (16 in the experimental group, 20 in the control group).

To examine the differences between the two groups in terms of the frequencies in each category, chi-squares were carried out in the cells with reasonable sized numbers. The results were :-

Table 19 - Results from Chi-Squares Across the Three Situations

Scenario	df	Chi-Square Value
Classroom	5	8.4
Peers	5	24.2**
Home	4	10.5*

Note : * $p<0.05$; ** $p<0.01$

There were no significant difference between the numbers in the categories in the experimental and control groups in the classroom scenarios. Significant differences, however, were noted in the peer situations ($p<0.01$) and the home scenarios ($p<0.05$).

For "**Appropriateness**" of response, the results were represented graphically as follows :-

Figure 13 - Bar Chart comparing the frequencies of appropriateness of response given in the Experimental and Control groups in the "Classroom" situations

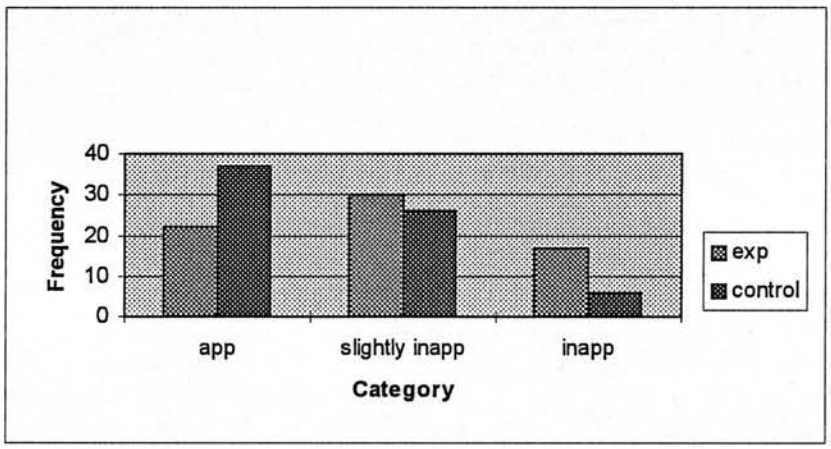


Figure 14 - Bar Chart comparing the frequencies of appropriateness of response given in the Experimental and Control groups in the "Peer" situations

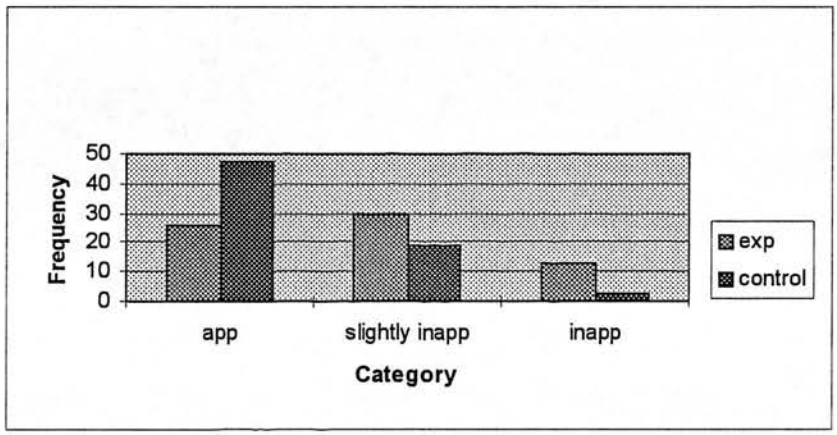
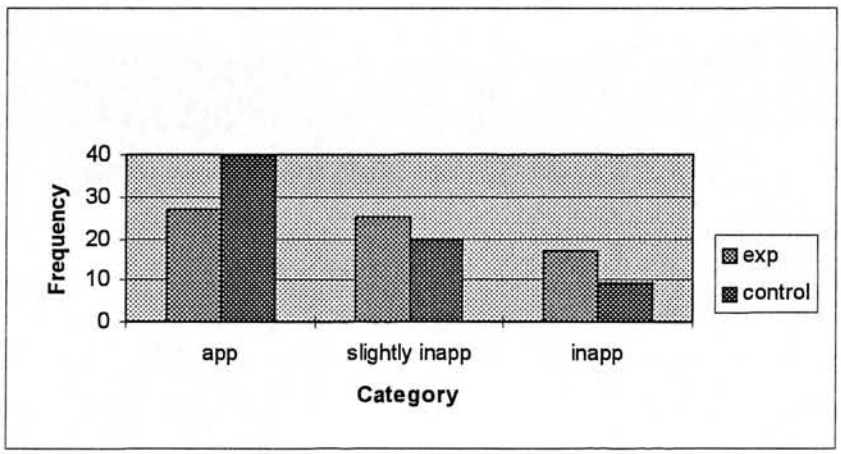


Figure 15 - Bar Chart comparing the frequencies of appropriateness of response given in the Experimental and Control groups in the "Home" situations



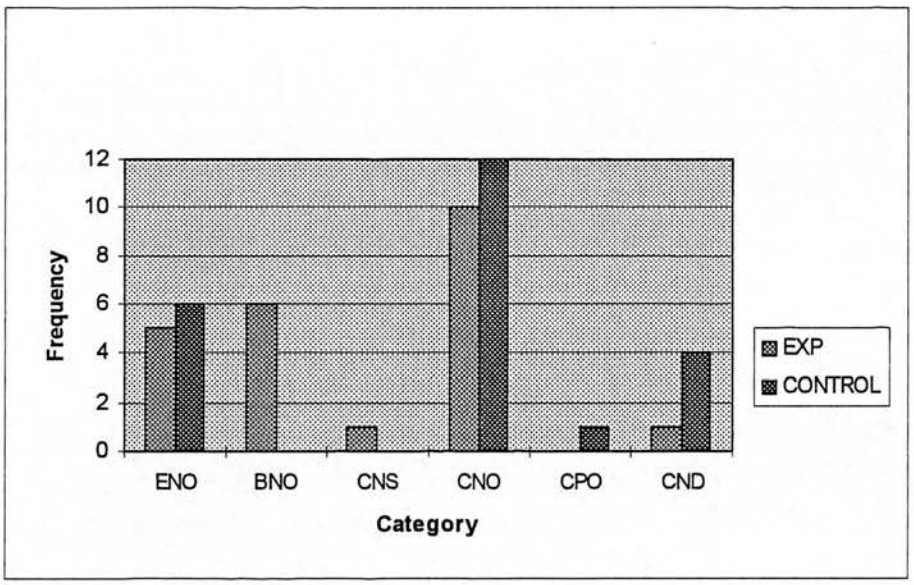
The majority of the responses made by both groups across all three situations were classed as either appropriate or sligthly inappropriate. The majority in the control group were thought to be appropriate with a fairly even split between the appropriate and slightly inappropriate categories in the experimental group.

In all three situations there were more responses categorised as inappropriate in the experimental group.

12.4.3 Findings from the "Ambiguous" situation

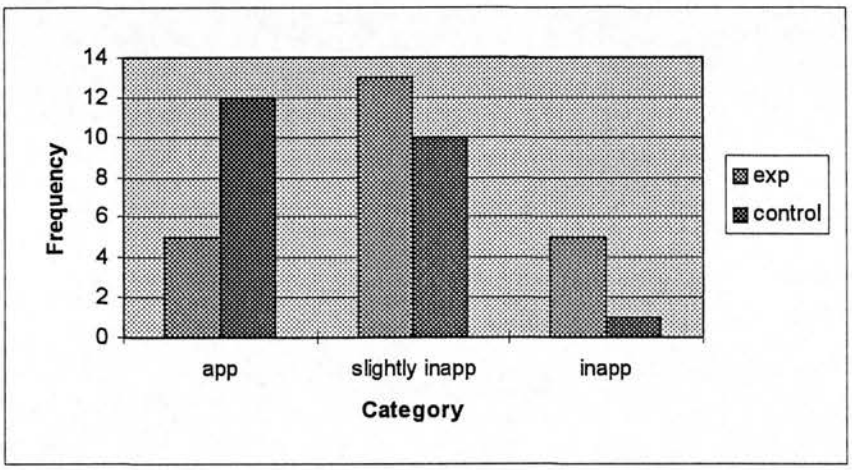
Type of responses - represented graphically

Figure 16 - Bar Chart comparing frequencies of types of response in Experimental and Control Groups in the Ambiguous situation



Appropriateness:-

Figure 17 - Bar Chart comparing frequencies of appropriateness of response in Experimental and Control Groups in the Ambiguous situation



Summary of findings :-

The majority of responses in this scenario were the same across the two groups, i.e were classed as being negative cognitions towards others. The experimental group gave a number (6) of responses that were negative behaviours towards others. None of these were present in the control group. The majority of responses across the two groups were deemed to be appropriate or slightly inappropriate.

DISCUSSION

The results of this study will be discussed in the following order, firstly, those derived from the measure of self-esteem, secondly, those from the measure of self-efficacy, thirdly, from the measure of cognitive distortions and lastly a consideration of the relationships between these three variables. Following on from this, treatment implications, limitations of the study and future research areas will be discussed.

13 - SELF-ESTEEM

The results from this study support the third hypothesis which suggested that children and adolescents with conduct disorder will report lower levels of self-esteem than normal children. On both the subscales (i.e., Behavioural Conduct and Global Self-Worth) from the Harter Self-Perception Profile, conduct-disordered children and adolescents scored significantly lower than normal controls. It was also noted that the mixed gender in the Control group did not alter this result. These results support findings from previous research (e.g., Lochman and Dodge, 1994).

The means of the two groups were also compared to the standardised scores produced by Hoare et al (1993) on Scottish school children. The norms for boys aged 12+ were considered as the mean age of the experimental group was 12.9 years and the control group was 12.3 years.

Table 20 - Present Study Means as Compared with the Standardised Mean Ranges

on the two subscales of Self-Esteem

Subscale	Norms - Average range	Experimental Group Mean	Control Group Mean
Behavioural Conduct	2.1 - 3.2	2.1	2.8
Global Self Worth	2.5 - 3.6	2.4	2.95

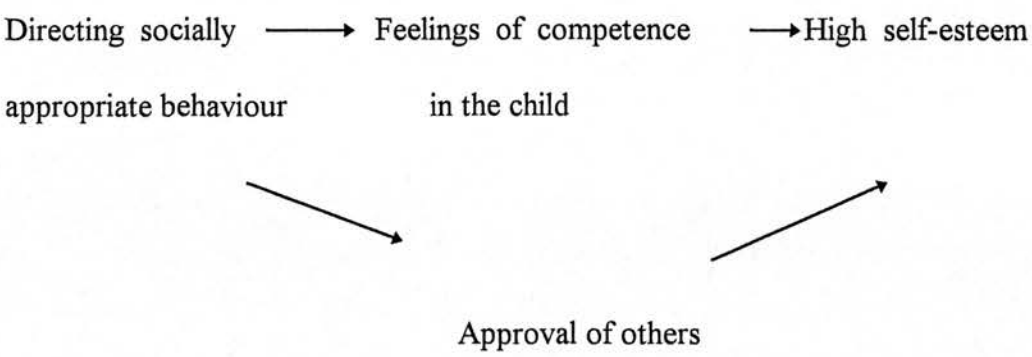
For the Behavioural Conduct subscale, it can be seen that the overall mean of scores for the experimental group was just within the average range of scores indicating a trend towards low self-esteem in that area. For the Global Self-worth subscale, the experimental group scores are just below the average range again indicative of low self-esteem. Both control group scores are within the average range.

The child psychopathology research has often found an association between childhood psychological disorders (both internalising and externalising) and low self-esteem (e.g., Crick and Dodge,1994), DSM-IV). However, a study by Schneider and Leitenberg (1989) noted that in comparison with children who were withdrawn or had comorbid conditions, aggressive children reported higher levels of self-esteem although not higher than controls. This suggests that although aggressive children may, in some cases, have a lower sense of self worth than normal children, there is a more complex relationship between the externalising disorders and self-esteem. This present study also suggests this, as although both the subscale scores are generally lower in the conduct disordered

group than the controls, the scores are either at the lower end or just outside of the average range. In children with conduct disorder, it may be the case that there are other areas of their life (not examined in this study) that are providing a source of self-worth, for for example, social relationships. Slaby and Guerra (1988) in a study of a population of adolescent offenders, found that many held the belief that aggression itself increased self-esteem.

As mentioned in the Section 2.1.2 (p30), good self-esteem is regarded as a valuable part of the foundation for a child's positive functioning and adaptation to life experiences. This is evidenced in Pope, McHale and Craighead (1988) also note that self-esteem is implicated in academic achievement with positive self-esteem being associated with higher grades in school. Harter (1986) discusses the importance of considering the functional role of self-esteem in children especially in interpersonal behaviour and emotion regulation. How children view themselves and their competencies will both mediate and moderate emotional and behavioural adaptation.

There is no single pathway to low self-esteem. An example of this is that part of the self-system described by Harter in 1983 is self-control which may be seen to have a number of relationships with self-esteem, e.g. two simple relationships are :-



There will be individual variations in what domains in life children will consider important to evaluate themselves in, for example, academic abilities, social competence.

Harter (1986) postulated that variations in children's self-esteem is dependent on their experience of support in others and their sense of competence. Shirk and Harter (1996) found four subgroups of children, 1.those who based their self-esteem on mostly their perceptions of support in others, 2. those who based their self-esteem on a sense of their own competencies, 3. those who had a combination of both and 4. those who had neither factor as a basis of their self-esteem.

Therefore, self-esteem is a multifactorial concept with various routes to both high and low self-esteem. Different domains in life will be valued differently by children at different developmental points in their life.

Within conduct disorder, self-esteem, whether high or low is an important concept to consider. Treatment models may include ways of increasing self-esteem in areas that would be more functional to the child in the future and decreasing the impact of the positive gains in self-esteem from aggressive acts or dysfunctional peer relationships.

The Harter Self-Perception Profile for Children

The Harter Questionnaire is a useful means for assessing self-esteem. The correlations are reasonably high between the subscales, it is easily administered and understood and has good reliability and validity. The Modified version (Hoare et al 1993) was especially useful for this study as it provided standardised scores for a population of Scottish school children.

14 - SELF-EFFICACY

The results from this study support hypothesis four which suggested that on a measure of self-efficacy, children with conduct disorder will report, a)that it is relatively easy for them to perform acts of aggression and, b) that it is relatively hard for them to inhibit acts of aggression, in comparison with normal children. On two subscales of the Self-Efficacy Questionnaire, children and adolescents with conduct disorder scored significantly higher on the Aggression subscale indicating ease of carrying out aggressive acts and scored significantly lower on the Inhibition of Aggression subscale indicating difficulty inhibiting acts of aggression. The opposite results were seen in the control group - lower scores on the Aggression subscale and higher on the Inhibition subscale (although it

must be noted that the females in the control group may be significantly contributing to the higher scores in this subscale). These results support similar findings to Perry et al (1986) and to Quiggle et al (1992).

In further explorations of self-efficacy, Perry et al (1986) found that aggressive children expected to gain tangible rewards and to reduce aversive stimuli by commiting acts of aggression. They postulated that when such children confront an aversive state (e.g. frustration, desire for some goal) and feel they are thwarted in some way, they are more confident that aggression will be successful in getting what they want or change the situation to a less aversive one. Boldizar et al (1989) found that aggressive children placed more importance on obtaining certain rewards from aggressive acts, for example, achieving control over others, than non-aggressive children. Aggressive children also had little concern for the negative consequences of aggression, for example, peer rejection or negative self-evaluation. Findings from the study by Slaby and Guerra (1988) suggested that aggressive adolescents endorse beliefs that aggression is a legitimate response to certain situations, it helps avoid a negative image and does not lead to suffering by the victim.

Does self-efficacy have a causal influence on behaviour ? Results from studies indicate a correlational relationship. It is possible that aggressive children's beliefs that aggression is easy and has a desirable outcome develops primarily after the children have learned aggressive habits. Beliefs, therefore, may serve as a rationalisation by aggressive children for destructive behaviour than as a

factor that triggers aggression. This view is similar to that discussed by Langer (1978) who argued that people behave in predictable ways without much thought to the factors guiding their behaviour. Aggression is seen as an overlearned response to certain stimuli so information about one's capabilities and about consequences of behaviour is processed automatically rather than consciously.

The Self-Efficacy Questionnaire

This was regarded as a useful measure to use in this study with reasonable internal reliability on the subscales used. The other subscales would have also been interesting to use (i.e. those assessing self-efficacy for verbal persuasion skills and prosocial behaviour) in this study but they do make the whole questionnaire rather lengthy especially for use with conduct disordered children.

15 - COGNITIVE DISTORTIONS

Although there are a number of studies that have investigated cognitive mediating factors in aggression and conduct problems, there are relatively few that assess specific types of cognitive distortion that may be present. The type of distortions made are important to consider as they may offer clearer differentiation between psychopathologies in children, different subgroupings in conduct disorder and there may be treatment implications.

Although the method of investigating distortions in this study was only at an exploratory level, a number of interesting results were obtained which both support and supplement the literature in this area. Within the various types of scenario presented to the children, various patterns and trends emerged which differentiated the two groups. Patterns of similar ways of responding were also obtained.

15.1 "Thwarted" Scenarios :-

The responses obtained from these types of scenario were fairly widespread over a number of different categories in both the conduct disordered group and the normal controls. It was also noted that the children responsed in fairly similar ways. The majority of the responses were negative in some way and mostly directed towards others in both groups. There was a trend for the control group to report more negative emotions (19%) and cognitions (25%) towards others and the experimental group to report more negative behaviours towards others (10%). A similar number of negative responses directed towards the self were also noted in both groups, although these were more in the form of cognitions in the conduct disordered group (23%) than in the control group (9%).

In summary, the responses produced by both groups were quite similar suggesting that in situations where children are thwarted in some way from obtaining a desired goal, thoughts and feelings are much the same. Differences may lie in how the children choose to manage such cognitive and emotional

experiences with perhaps the conduct disordered children tending to react with more hostile behaviours.

15.2 "Blame" Scenarios :-

The responses obtained from these scenarios were seen to differentiate the two groups more so than in the "thwarted" scenarios. Just over half of the responses in the conduct disordered children represented negative statements towards others (emotions, behaviours or cognitions). A substantial proportion of these statements were also seen in the control group (38%) but more in terms of emotions or cognitions rather than the desire to carry out certain actions as in the experimental group. There was also a trend in the control group for children to come up with a positive behavioral response that indicated a useful coping strategy for managing the situation. For example :-

"I am thinking what I might say to prove that it wasn't me to blame"

More negative statements towards self, especially cognitions, were also seen in the conduct disordered children (28%) than in the normal controls (19%).

The responses in this scenario support previous research findings that aggressive children demonstrate hostile attributional biases and were more likely to be aggressive in certain situations and give aggressive solutions to problems in social situations than normal children (e.g., Quiggle et al 1992).

15.3 "Provocation" Scenarios :-

Responses obtained in this category were similar to those in the "blame" situations. 61% of the responses given by conduct disordered children were in some way negatively directed towards others, especially behavioural responses (30%). Negative behaviours towards others comprised only 7% of the responses in the control group but there were a number of negative cogntions directed to others (29%). The control group also demonstated a trend towards giving more positive strategies to deal with the situation. For example :-

"I will go and tell the teacher"

"I will just ignore them"

Again these findings support the claims that children with aggression and conduct problems are more likely to use aggression in difficult situations and generally that there thoughts and feelings are negative to others.

15.4 Other situation types - in the class, with peers and at home :-

The majority of responses in the classroom scenarios were negative especially those directed towards others with similar percentages in both groups - 46% in the conduct disordered group and 48% in the control group. There was a trend towards more negative behaviours in the conduct disordered group. Very similar results were obtained in the "home" scenarios.

Within the "peer" scenarios, the conduct disordered gave more responses that were negative towards self and others (especially behaviours) than the control

group. The control group reported a greater percentage of positive statements that were either cognitions or behaviours (32%). This trend in responding may reflect the difficulties in peer relations and the management generally of social situations that are often associated with conduct disorder.

15.5 Negative Self-Statements :-

Children in the conduct disordered group consistently produced a larger number of negative cognitions directed to the self. Further investigation of these statements revealed that a number contained "should" statements i.e. an action that should or should not have been carried out to avoid the negative event. For example :-

"I should have listened"

"I should not have rushed my work"

A number of these were also noted in the "blame" scenario involving rough play in which there is some ambiguity about who is to blame. For example :-

"I shouldn't have been picking on him"

"I shouldn't have pushed him"

Responses such as these warrant further investigation as although they may be fairly reasonable and appropriate responses, if they are occurring a lot and across a variety of situations then they may be considered to be a particular type of distortion. For example, such statements may imply that the child is overly critical of themselves and sets high standards for how they think they

ought to behave. Failure to meet such standards may produce negative emotions which consequently may be a factor in the maintenance of problem behaviours. Within the literature on adult psychopathology, "should" statements are commonly associated with depression and low self-esteem (e.g., Fennell, 1997) and so within children with conduct disorder, the over-production of such statements may be present in the subgroup with features of internalising disorders.

There were other recurring statements within the negative self cogntions category. It was noted that the word "always" appeared fairly regularly as seen in the following examples:-

"I'm always left out"

"This happens to me all the time"

"I am always getting the blame"

" He always gets to do what he wants"

These type of statements are similar to those that would be included under the heading of the cognitive distortion of overgeneralisation i.e. that the outcome of one situation will apply to all other similar situations. Previous research has suggested that distortions soch as overgeneralisation have tended to be features of internalising rather than externalising conditions (e.g. Kempton et al 1994). This study, however, provides a little evidence that perhaps some of the distortions typically associated with internalising disorders are also present in conduct disorders and that the measure used in this study tapped into these more so than previously devised measures which were developed specifically

with depression in mind. It may also be the case that the children who tended to give these type of resposes were all experiencing depressive features. Further clarification of this is required.

Other statements noted in the negative self cogntions included worries about the consequences of their actions in terms of receiving harsh punishments (e.g., "my Mum will give me a hiding") and in the bullying scenario, something about themselves that was partly to blame for the situation (e.g., "they wouldn't be horrible to me if I had better clothes"). The control group also occasionally expressed concerns about negative consequences but not in terms of such harsh punishments. Such statements again need to be investigated further.

15.6 The Appropriateness of the Responses

As noted earlier, the results from this scale need to be interpreted with caution as the decisions made about the appropriateness of responses were fairly unreliable. There was a trend towards more responses being categorised as inappropriate for the scenarios in the conduct disordered group and more appropriate responses in the control group.

This issue requires further investigation as it is possibly an important one in the discussion of the existence of cognitive distortions in conduct disorder. The scenarios presented to the children were meant to represent difficult situations and therefore some degree of negative thoughts and emotions would be expected. It would be important to clarify, by investigating responses made in a

much larger population of normal children, what kind of responses are the most typical before making decisions about appropriateness.

15.7 The Ambiguous Scenario

This scenario produced very similar responses from both groups and these were mostly negative emotions, cognitions or actions against others. This is somewhat contradictory to previous studies which suggests aggressive children, more so than normal peers, are biased to attribute hostile intentions to others in ambiguous situations (e.g., Dodge, 1980).

This result could have come about for two reasons :-

1. The way the scenario was role-played may have been too leading, i.e. the main character at the end of the scene looked a little upset and annoyed so cueing the participants in the study into expressing negative statements. A neutral expression on the main character's face at the end may have produced different responses from the two groups.

2. This scenario was presented last on the video so the participants again may have too much cued into producing negative statements as they had in the other ways. Varying the order of presentation of the scenarios may have produced different responses from the two groups.

Further clarification of these issues is required.

15. 8 Summary

There are then some trends within the responses given that differentiate the two groups :-

- more negative, behavioural responses directed towards others in the conduct disordered group especially in situations where there is provocation or blame is being allocated to them. These responses are more likely in peer situations.

- more negative cognitions about aspects of themselves in the conduct disodered group which can be seen across a variety of situations.

In the light of hypotheses one and two (p71), the results of this study give some evidence for distortions in cognitive processing in children with conduct disorder. Some of these distortions do seem to be specific to externalising disorders, i.e., represent a hostile, negative outlook on the world and other people, but other distortions are similar in form to some of the typical distortions found in internalising disorders, e.g., "should" statements and overgeneralisation. Further investigations on larger samples would be required to confirm this.

However, this study has also shown that the two groups of children can also respond in very similar ways. This suggests:-

1. an interaction of many factors (cognitive distortions being one of these) that cause some children to produce aggression and conduct problems and other children not to in certain situations (see following section).

2. cognitive distortions are not a phenomena but exist in certain groups but not others but may be seen to occur in most, if not all, people under some circumstances. Differentiation between certain groups, for example, the various psychopathologies, may be seen in the degree of distortion produced or the frequency with which they occur.

16-RELATIONSHIPS BETWEEN SELF-ESTEEM, SELF-EFFICACY AND COGNITIVE DISTORTIONS

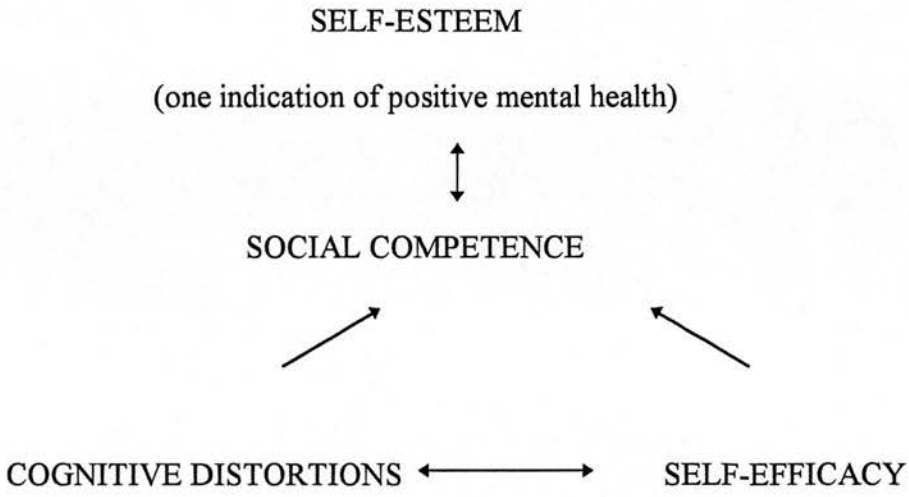
As noted earlier, the similarity in the types of responses produced in a variety of situations by both conduct disordered and normal children suggests that other factors may be interacting with cognitive experiences. It is the combination of these factors which will help decide if aggression or other difficult behaviours are produced or not.

Two other factors were considered in this study - self-efficacy for commiting or inhibiting aggressive acts and self-esteem. In the case of self-efficacy, i.e. the perceived ability to perform certain actions, it was noted that conduct disordered children reported that they found it relatively easy to commit aggressive acts both verbal and physical but found it difficult to inhibit such acts. The opposite findings were found in normal children. This suggests that if children are reporting a desire to act in negative ways towards others in some situations and think it easy to perform such actions, then this may increase the likelihood of aggression occurring. Normal children, on the other hand, may

have similar thoughts but find it easier to inhibit such actions and manage the situations more effectively.

How these two factors relate to self-esteem is also worth considering. The analysis in this study indicated that the relationship between self-efficacy and self-esteem may not be a direct one i.e low self-esteem linked with aggressive behaviour good self-esteem with adaptive behaviour (although there is perhaps a little evidence for this in this study). Children with aggression and conduct problems may derive their self-esteem from a number of different sources included ones which may be considered dysfunctional, for example, from peers with similar difficulties or from the performance of aggressive acts. Therefore, if children display more negatively biased thoughts, emotions and actions towards others, find it easier to act on these, plus gain feelings of self-worth or approval from valued others for their actions, then again this may increase the likelihood of aggression occurring and indeed remaining stable over time. Normal children may, as noted earlier, have similar thoughts but combining a better perceived ability to inhibit negative actions and deriving self-esteem from more adaptive sources (e.g., academic abilities) this leads to more postive social functioning.

In Section 3.4, a simplified model of Felner et al's (1990) was presented to provide part of the theoretical framework for this study. This was :-



This study provided some evidence for the interplay of various factors in this model. Felner et al (1990) noted the reciprocal relationship between social competence and self-esteem, noting that some individuals may be socially competent but yet report low levels of self-esteem and vice versa. Although previous studies (e.g., Glyshaw, Cohen and Towbes, 1989) have indicated positive correlations betweem self-esteem and social competence as indeed indicated in this study, but this may depend on which domains of life feelings of self-worth are being obtained.

The relationships between these various factors need to be examined further to clarify the precise processes by which they operate to produce acts of aggression and other conduct problems. Felner et al (1990) noted a number of other factors including behavioural and emotional which must also be considered. It is likely that the number of factors involved and the degree to

which they are involved in the production and maintenace of conduct problems will be subject to individual differences requiring elucidation before any intervention can begin.

17 - CRITICAL OVERVIEW OF THE STUDY

There are a number of criticisms of this study that must be noted which indicate that the results must be interpreted with some amount of caution.

17.1 Sample

The numbers in each of the groups were fairly small mainly due to time constraints and initial difficulties in recruiting participants. More numbers in each group would have made the comparisons more valid.

Attempts were made to match the two groups by age, gender, social background and academic abilities. The mean ages of the two groups were approximately equivalent (12.9 years in the experimental group and 12.3 years in the control group). It would have been perhaps more useful to have a tighter age range on each group as there may be developmental factors affecting the types of responses given by the children at the extreme ends of the range, for example, different levels of cognitive development.

Unfortunately, gender was mixed in the control group (males - 15; females -8) and although analyses of the results suggested that gender was having a minimum effect on the sample, this remains a difficulty. Comparisons between

the two groups would have been more valid with an all male sample in the control group.

Matching for social background was carried out informally. The addresses of the children in the control group were initially recorded (and then discarded) and it was noted that the majority came from areas in the city that were known to be socially disadvantaged. Controls were mostly recruited from schools in similar area. Time constraints meant that some more had to be gathered from other sources (socially disadvantaged areas - 15 ; other - 8). Again, a control group consisting of all children from socially disadvantaged backgrounds would have given clearer comparisons. It may also be useful to incorporate a more formal method of matching for backgound, for example, using deprivation category scores based on postcodes as devised by Carstairs and Morris (1991).

It was difficult to match the two groups on academic abilities within the time constaints of the study and the subsequent range included was very wide. It was noted that the majority (15) of the experimental group were delayed on the measure used (British Picture Vocabulary Scale) by more than two years. In the control group, only seven children were similarly delayed. Better matching of cognitive abilities would be required for future studies and it would also be interesting to make comparisons across different levels of ability in both conduct disordered and normal children. Multiple regression analysis in this study suggesting that the BPVS score was not contributing significantly to the results but more stringent analysis of the effects of academic ability would be

required before any differences between the two groups could rule out this factor.

The influence of cognitive abilties is an important consideration. Pont (1995) reported that in problem-solving tasks given to a sample of conduct disordered children and to samples of high and low ability children, the conduct disordered group had deficiencies but so did the low ability group (no problem behaviours noted). When required to produce a list of alternative solutions to problems, it was found that the conduct disordered group were significantly better at this than the low ability group. Therefore, as Pont states making direct links between cogntive deficits, such as problem-solving, and social adjustment is doubtful and in fact, consideration of distortions, i.e., type of response given, may be more appropriate.

Although the British Picture Vocabulary Scale was a quick, useful measure for at least one areas of academic ability, a measure encompassing more areas of ability would have been better.

There was no formal measure used to assess for the symptoms of conduct disorder. ICD-10 criteria was used as a guideline and and the problem behaviours of each child were gleaned from the school records which were very detailed and often included social work and educational psychology reports. The majority of the sample were recruited from a residential school for children with emotional and behavioural difficulties, all of which had a

prolonged history of difficult behaviour both in school and home settings. The children were in these special settings as normal schools could not cope with level of disruptive behaviour. The others in sample attended a special primary school for similar children (not residential) and the other two came from a Child Psychiatry Department and similar levels of behavioural problems were noted. Therefore at a behavioural level the children were fairly similar in the types of behaviour displayed but they have been a more heterogeneous group in other way. For example, although no records specifically mentioned comorbidity, it may have been the case that some children were also experiencing depression or anxiety. Standardised measues screening for these difficulties may have been useful inclusions in this study.

In summary, a major difficulty in researching children with conduct disorder is in obtaining a reasonably homogeneous group in both the experimental and control conditions so that valid comparisons can be made.

17.2 Measures

The self-esteem measure (Harter's Self-Perception Profile for Children) as noted earlier was found to be useful with good reliability and validity. It would have been useful to make comparisons across more scales, e.g. in consideration of the multiple domains of self-esteem, conduct disordered children may gain self-esteem from others sources other than those assessed here, e.g. social acceptance, athletic competence etc.

The Self-Efficacy Questionnaire (Perry et al 1986) was also useful and had reasonable face validity with this sample. More research is required with this measure, especially to develop standardised scores for British children and to increase the age range to include an older adolescent population. Again for this study comparisons across the other scales would have been useful and to use in conjunction with the other measures eg Outcome Expectancies and Outcome Values (although all are very lengthy).

The measure for investigating cognitive distortions was specifically developed for this study and therefore only exploratory. It was felt to be useful with reasonable internal reliability and good face validity with the sample, i.e., most felt they could relate to the scenarios presented to them. However, there are a number of points that must be taken into consideration for the development of future methods.

17.2.1 Scenarios

1. These could have been enacted in more natualistic settings for the children e.g., in actual classroom, playground and home settings, again to increase how much the children could relate to the events.

2. It was noted that there may have been more than one theme included in some of the scenarios, e.g., a provocation scenario may also have had elements of blame included. this possibily reduced the reliability of the measure so clarification of the actual theme being presented would be required for future research.

3. The children who role-played the scenarios used mostly there own words and phrases to develop each scene. this was generally good as it made each scenario look and sound quite natural. However, it may have been the case that occasionally their phrases etc. were too leading and cued the participants in the study to answering in certain ways.

17.2.2 Scoring

Previous studies have utilised response choice formats for children (e.g.,Quiggle et al, 1992) which may lead to problems with biases in questions and children answering in a social desirable way. This study used the much more open-ended following thought-listing method which was aimed at tapping into children's stream of consciousness at that particular moment. This was regarded as a useful technique as it allowed for more qualitative analysis of the results which Pont (1995) notes as being important in this research area. However, perhaps the use of more specific questions after the general ones would have given additional information to clarify the nature of some of the responses.

17.2.3 Categorisation

There was reasonable inter-rater reliability for decisions made about the type of response and the direction but this was not so good for the "appropriateness" scale. Future research considering how appropriate certain responses are would require more objective guidelines to help make such decisions, taking into

account the variety of settings and people that children may encounter in their daily lives.

In summary, the method used in this study for investigating cognitive distortions was found to be useful although only exploratory. More research would be required to test external forms of reliability and validity. The open-ended question format gave some indication of the type of information that may be useful in the development of a more structured assessment tool designed specifically with conduct disordered populations in mind.

18 - IMPLICATIONS FOR TREATMENT OF CONDUCT DISORDER

Interventions for conduct disorder have come from various different perspectives. For example, there are those that have focussed on the individual, those that have focussed on the family and those that have focussed on wider influences such as school and the community. Kazdin (1997) notes, however, that overall, treatment for conduct disorder has not been too effective in reducing the long-term course of the problem behaviours. As Kazdin goes on to note, this is unfortunate because of the cost of conduct disorder not only to the individual child but to their families and to society in general.

Recently, there has been some promising outcome evidence for a few treatment approaches. These will now briefly be described (Kazdin 1997 provides a more in-depth review of each approach).

18.1 Parent Management Training

This approach trains parents to use specific procedures to change their child's behaviour in the home with the aimof promoting prosocial behaviour and decreasing more deviant behaviours. The main guiding theory behind this approach are learning principles in which certain behaviours are learned and maintained because they are reinforced. So problem behaviours occur because they have been inadvertantly rewarded or due to inconsistent reinforcement or lack of attention to prosocial behaviours. The training, therefore, involves helping parents to learn different ways of interacting with their child, for example, through positive reinforcement, the use of mild forms of punishment and consistency in applying the techniques.

Parent Management Training has been well researched and has generally shown good results with improvements noted in both parent and teacher reports of the child's behaviour and in direct observation of the child. Gains have also been noted to be maintained at follow-up assessments, for example, Long, Forehand, Wierson and Morgan (1994) reported maintenance of gains 10-14 years later. Other gains have also been noted, for example, improvements in sibling behaviour and reduction of maternal depression (Kazdin, 1985). However, families with many of the risk factors associated with conduct disorder (e.g. poverty, interparental difficulties, poor social support) do tend to show fewer gains in treatment (Webster-Stratton, 1985). This problem may be redressed somewhat by the development of community-based programmes (e.g. Cunninghan, Bremner and Boyle, 1995).

18.2 Functional Family Therapy

This approach takes the viewpoint that problems that occur within families may serve particular functions. So, for example, the production of conduct problems in the child is the only way that some interpersonal functions can be met among the different family members (e.g. support or intimacy). Therapy, therefore, attempts to change these maladaptive interaction patterns to produce more adaptive functioning. Social learning principles are also included in this approach so specific problems can also be targeted.

This approach has been the subject of less outcome research but the studies that are available have shown good outcomes, for example, improvements in family communication and reduction of delinquent behaviours. Functional Family Therapy has led to greater change than other forms of family therapy (e.g. psychodynamically-oriented) and in control conditions (Alexander, Holtzworth-Munroe and Jameson, 1994). Further research is required with this approach to determine the precise processes through which it is effective and which type of families respond best to it.

18.3 Cognitive-Behavioural Approaches

Kendall (1993) states that cognitive-behavioural therapies, " integrate cognitive, behavioral, affective, social, and contextual strategies for change" (pp 235). A differentiation that is important to make before engaging in therapy, is whether the cognitive dysfunction produced by the client represents

a defiency or a distortion. Deficits in cognitive processes would require intervention to focus on skills teaching whereas distortions requires that the faulty processes be challenged and altered.

Children and adolescents with conduct disorder display both deficits and distortions in cognitive processing. For example, one well-researched area is that of deficits in problem-solving skills. From researchers such as Dodge (1986), there is evidence that aggressive children generate fewer alternative solutions to problems, have difficulties choosing the most appropriate solution and have problems implementing appropriate solutions. Problem-solving skills training involves teaching children to approach problem situations differently by utilising a step-by-step approach to solving them and reinforcement of prosocial behaviour solutions.

Research has indicated that problem-solving skills training can be effective in reducing aggressive behaviour. For example, Kazdin, Esveldt-Dawson, French and Unis (1987) found that such training reduced parents' and teachers' ratings of aggressive behaviour in a sample of aggressive children in an inpatient psychiatric unit and these gains were maintained a year later. These results have also been replicated in out-patient populations (e.g. Kazdin, Bass, Siegel and Thomas, 1989).

Cognitive distortions in information processing have been the focus of this study. Intervening at this level has often involved active therapist involvement

with, for example, the therapist overtly verbalising their appraisal of certain situations, solutions to the problem and possible consequences that may ensue from the various solutions. Self-monitoring components are also included involving labelling affect appropriately and making use of inhibitory self-statements to slow down impulsive responses. Helping children to be more aware of non-hostile environmental cues especially in social situations and to be aware of the variety of intentions that others might have in various situations is also an essential component of the therapy.

Cognitive Therapy as developed by Beck (e.g., 1964) is aimed at identification of cognitive distortions in thinking, challenging these and producing alternative more adaptive ways of construing events which will consequently, lead on to more adaptive behavioural responses. Distortions are challenged by considering evidence to either support or refute them. It may be useful to consider adapting this form of CT for children rather than so much of a focus on skills teaching. This may consist of challenging statements made by the child in response to certain situations (statements represents distortions). For example, to consider the evidence against "always" statements ("I'm always getting the blame") by look for incidences where this does not happen. Challenging distortions may involve other influences eg teachers and parents using more positive statements etc in order to help gather evidence against the negative thoughts.

Therfore, intervention would offer other interpretations or reinterpretations of specific situations and the challenging of specific distortions to help gain a more

balanced view of events and learn new strategies for managing more difficult situations.

With all the above treatment approaches, more outcome research is required to undertake longer term studies examining maintenance of change over lengthy periods of time and to have a better understanding of which groups respond best to which type of treatments. It is also important to consider outcome in wider domains rather than just the amelioration of symptoms. For example, one of the major difficulties with conduct disorder is that it impairs a child's adaptive functioning in society. Do interventions change this? Are there gains in school functioning, peer relations or prosocial behaviour? The impact of treatment on the child's overall functioning should, therefore, be an important goal of any intervention.

A major difficulty with interventions for conduct disorder is that of children and families dropping out of treatment. Kazdin (1990) found that many of the risk factors associated with conduct disorder also place families at greater risk for dropping out of treatment (e.g. high parent stress, single-parent families, socioeconomic disadvantages, poor child-rearing practices). There may be a number of reasons why dropping out occurs frequently among this population including actual physical and financial difficulties attending for treatment (e.g. lack of transport, costs, arranging time off work etc.), having to arrange care for siblings or perhaps difficulties persuading the identified child to attend. As the families that are most likely to drop out of treatment are often the most

impaired, interventions should attempt to address some of these issues, for example, developing more community-based treatments, fostering a good working alliance with family members early on in treatment or considering different models of treatment delivery utilising regular monitoring over a long period of time and maintenance sessions (Kazdin. 1997).

19 -FUTURE RESEARCH

Future research in this area should seek to tighten up on the methodological limitations on this study and consider developing standarised measures examining the cognitive experiences of children and adolescents with conduct disorder. However, as this study indicates, although cognitive factors still require much clarification in this population, there is a need to investigate how these may interact with other potential mediators- for example, behavioural, emotional, social and motivational factors. It would also be necessary to consider how the interaction of these mediators form the mechanism by which the many risk factors actually cause conduct disorder. There is also a need to make a number of different comparisons across different ages, academic abilities, severity of difficulties and comorbid conditions again to aid in differentiating particular groups and for intervention. Indeed, there is also a requirement to examine in more detail, the pathways leading to conduct disorder in girls as it is often suggested in the literature that these may be somewhat different (e.g., Frick, 1998).

20- CONCLUSIONS

Conduct disorder in children and adolescents continues to represent a challenge to the professional agencies that such youths often come into contact with. They represent a diverse group displaying many difficult problem behaviours. The multitude of risk factors associated with conduct disorder suggests that there are a number of pathways to its development, all of which may involve complex interactions of these factors at different developmental periods of a child's life.

The exact mechanisms by which the risk factors operate are still unclear but the recent research on the mediating role of socio-cognitive factors has added some light on this issue. This study has noted, by focussing on the type of cognitive distortions that may be present in children and adolescents with conduct disorder, that some distortions may be specific to the disorder but others may represent those already found in other child psychopathologies. The similarity in the way that children respond, as also noted, suggests that there is a need for consideration of cognitive factors interacting with other mediating influences, especially perhaps those in the emotional and motivational domains, to produce problematic behaviours.

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APPENDIX 1 - FEATURES OF EXPERIMENTAL GROUP

TABLE 1

BEHAVIOUR DISPLAYED BY EXPERIMENTAL GROUP	NUMBERS
DEFIANCE	23
DISOBEDIENCE	23
TEMPER TANTRUMS	23
AGGRESSION:- - PHYSICAL (eg excessive fighting) - VERBAL (inc sexualised language)	 20 20
DESTRUCTIVE TO PROPERTY	5
LYING	4
BULLYING	8
STEALING	8
TRUANCY	4
SCHOOL EXCLUSIONS	10
FIRESETTING	3
DISRUPTIVE BEHAVIOUR	23
SOLVENT ABUSE	2

TABLE 2

OTHER DIFFICULTIES REPORTED	NUMBERS
ATTENTION PROBLEMS	10
IMPULSIVE	10
ENCOPRESIS / ENURESIS	4
SENSATION-SEEKING BEHAVIOUR	5
LOW SELF-ESTEEM	5
POOR PEER RELATIONS	16
SELF-HARM	1
ATTENTION-SEEKING BEHAVIOUR	8

TABLE 3

FEATURES OF BACKGROUND	NUMBERS
SINGLE PARENT	10
PARENTAL SEPARATION/ DIVORCE	5
INTERPARENTAL VIOLENCE	8
PHYSICAL ABUSE	3
SEXUAL ABUSE	2
PARENTAL DRUG/ALCOHOL PROBLEMS	5
INCONSISTENT PARENTING	15
INADEQUATE CARE BY PARENT	5
FOSTER CARE PLACEMENTS	5

TABLE 4

PREVIOUS PROFESSIONAL INPUT	NUMBERS
SOCIAL WORK	23
INTENSIVE TREATMENT GROUPS (run by SW)	12
BARNADO'S PROJECT	4
EDUCATIONAL PSYCHOLOGY	23
CLINICAL PSYCHOLOGY	1
CHILD PSYCHIATRY :-	
- outpatient	5
- inpatient	4
- group work	2
SPECIAL SCHOOLING	21

TABLE 5

ACADEMIC ABILITIES	NUMBERS
AVERAGE ABILITY	10
AVERAGE/ SPECIFIC DIFFICULTIES	1
LOW AVERAGE / SPECIFIC DIFFICULTIES	10
BORDERLINE	1

TABLE 6

TIME OF ONSET	NUMBERS
EARLY	22
LATE	1

APPENDIX 2 - INFORMATION SHEET AND CONSENT FORM

INFORMATION FOR PARENTS

I would be very grateful if you would give your consent to allowing your child to take part in a research project that I am undertaking as part of my post-graduate training to be a Clinical Psychologist.

I am interested in children with conduct problems, for example, getting into fights, lying, disobedience, temper tantrums etc. For my research I am hoping to find out more about how these children feel about themselves and the kind of thoughts that go through their minds when faced with difficult situations.

In order to carry out the above I aim to interview children individually and go through some questionnaires specifically developed to inquire about children's beliefs and thoughts. The questionnaires mostly take the form of short stories about various situations that may arise at school or with friends. The child is asked to say how they would feel or what their thoughts would be if they were in that situation. I anticipate that each interview with your child should last about 50 mins - 1 hour. If you agree to take part I will contact you personally to arrange a time and place suitable for you.

My aim in carrying out this research is to advance our understanding of children with conduct problems so that this may prove useful in the treatment of such children and their families.

I DO NOT require any names for this research - I would just need your child's age. All responses given by the child would be CONFIDENTIAL. The results of this study will be written up generally so no individual can be identified. You can decide to withdraw at any time during the study and this will not affect any on-going treatment. I will also ask your child if they want to take part and again they have the right to refuse to take part at any time. No explanation is required if either you or your child wishes to withdraw.

If you would like your child to take part in this study please read and sign the consent form that is also enclosed and return it in the prepaid envelope provided or hand it in to the Psychologist/Psychiatrist that is working with you. Please do not hesitate to contact me if you require further information about any aspect of this research. I can be contacted at the address and phone number below.

Thank you very much.

Audrey Young
Trainee Clinical Psychologist
Department of Clinical Psychologist
Royal Aberdeen Children's Hospital (Tel no. 01224 681 818 ext 52234)

CONSENT FORM

CONSENT BY PARENT FOR THEIR CHILD TO PARTICIPATE IN :

A STUDY LOOKING AT CHILDREN WITH CONDUCT PROBLEMS AND SPECIFICALLY THEIR THOUGHTS AND BELIEFS IN CERTAIN SITUATIONS.

Name of child : _____

Principal Investigator : _____

I have read the parent information sheet on the above study and have the opportunity to discuss the details with AUDREY YOUNG , TRAINEE CLINICAL PSYCHOLOGIST, to ask questions. The Psychologist/Psychiatrist has explained to me the nature and purpose of the tests to be undertaken. I understand fully what is proposed.

I have agreed to take part in the study as it has been outlined to me, but I understand that I am completely free to withdraw my child from the study at any time I wish and that this will not affect my continuing treatment in any way.

I understand that this research project is designed to promote psychological knowledge, which has been approved by the Joint Ethical Committee and may be of no benefit to me personally.

I hereby fully and freely consent to participate in the study which has been fully explained to me.

Signature of parent : _____

Date : _____

I confirm that I have explained to the parent named above, the nature and purpose of the tests to be undertaken.

Signature of investigator : _____

Date : _____

APPENDIX 3 - CHECKLIST FOR SYMPTOMS OF CONDUCT DISORDER

CHECKLIST FOR RESEARCH ON CHILDREN WITH CONDUCT DISORDER

AGE OF CHILD : 9 - 12 YEARS OLD

BELOW IS A LIST OF THE MOST COMMON FEATURES OF CONDUCT DISORDER - PLEASE PLACE A TICK NEXT TO THE FEATURES THAT THE CHILD YOU ARE SEEING DISPLAYS :

-

DEFIANCE (severe and persistent)

DISOBEDIENCE (severe and persistent)

AGGRESSION (eg getting into fights a lot)

STEALING

DESTRUCTIVE BEHAVIOUR

LYING

TANTRUMS

TRUANCY

The following also may be present :-

FIRESETTING

RUNNING AWAY

BULLYING PEERS

CRUELTY TO ANIMALS

SCHOOL SUSPENSION

If between 2 or more symptoms are present the child can be considered for the study. Another common diagnosis is mixed conduct and emotional disorder. If this is the case then this child may also be included in the study. Please place a tick next to the particular category below if this is the case.

CONDUCT DISORDER WITH DEPRESSION

CONDUCT DISORDER WITH ANXIETY

If a child you are seeing presently fulfils the criteria noted above, then please give the parents a copy of the information sheet and consent form giving more details about the study. Please ask the parents, if they wish to take part in the study, to return a signed consent form in the prepaid envelope provided or they may also hand a signed form back to you.

Please retain this checklist and return it to the Clinical Psychology Department for my records. It would also be helpful if you could put the name, address and tel. no. of the subject if possible on this form. This would only be for the purposes of contacting the family to arrange a time to meet and after this no names are required.

NAME OF SUBJECT :
ADDRESS AND TEL. NO. (if possible) :

APPENDIX 4 - QUESTIONNAIRES :-

- SELF- PERCEPTION PROFILE FOR CHILDREN
- SELF-EFFICACY QUESTIONNAIRE
- ASSESSMENT OF COGNTIVE DISTORTIONS

SELF-PERCEPTION PROFILE FOR CHILDREN

The following items were selected from original 36 item questionnaire developed by Harter (1985) :-

	Really true for me	Sort of true for me		Sort of true for me	Really true for me
1.	☐	☐	Some kids often do not like the way they behave BUT	☐	☐ Other kids usually like the way they behave
2.	☐	☐	Some kids are often unhappy with themselves BUT	☐	☐ Other kids are pretty pleased with themselves
3.	☐	☐	Some kids usually do the right thing BUT	☐	☐ Other kids often don't do the right thing
4.	☐	☐	Some kids don't like the way they are leading their life BUT	☐	☐ Other kids do do like the way they are leading their life
5.	☐	☐	Some kids usually act the way they know they are supposed to BUT	☐	☐ Other kids often don't act the way they are supposed to
6.	☐	☐	Some kids are usually happy with themselves as a person BUT	☐	☐ Other kids are are often not happy with with themselves
7.	☐	☐	Some kids usually get into trouble because of the things they do BUT	☐	☐ Other kids don't do things that get them in trouble

	Really true for me	Sort of true for me			Sort of true for me	Really true for me
8.	☐	☐	Some kids like the kind of person they are	BUT Other kids often wish they were someone else	☐	☐
9.	☐	☐	Some kids do things they know they shouldn't do	BUT Other kids hardly ever do things they know they shouldn't do	☐	☐
10.	☐	☐	Some kids are very happy being the way they are	BUT Other kids wish they were different	☐	☐
11.	☐	☐	Some kids behave themselves very well	BUT Other kids often find it hard to behave themselves	☐	☐
12.	☐	☐	Some kids are not happy with the way they do alot of things	BUT Other kids think the way they do things is fine	☐	☐

Self-Efficacy

NAME _____ BOY GIRL

GRADE _____ AGE _____ BIRTH DATE _____

Read each question carefully and PRETEND what it says is happening to you. Then CIRCLE how easy it would be for you to do the things in each question. Some kids your age think these things are hard to do, other kids your age think these things are easy to do. We want you to circle the answer that is really true for you.

Remember, this is not a test and there are no right or wrong answers. Be sure to CIRCLE the answer that is really true for you. Here is an example for you to try:

It's your turn to clean up the play area. Asking other kids to help is _____ for you.

VERY HARD! hard easy VERY EASY!

SELF-EFFICACY QUESTIONNAIRE

The following items were selected from the original 46 item questionnaire devised by Perry, Perry and Rasmussen (1986):-

1. On the playground, another kid bumps into you. Calling the kid bad names is _____ for you.

HARD! hard easy EASY!

2. A kid gets in your way when you're in a hurry to get all your stuff together and leave at the end of school. Shoving the kid out of the way is _____ for you.

HARD! hard easy EASY!

3. In class a kid is passing out birthday party invitations and you are not invited. You really feel like yelling something mean at the kid, but you decide not to. Not yelling at the kid is _____ for you.

HARD! hard easy EASY!

4. The class is working on large posters and you really want to use the big paint brush for your poster, but another kid takes the big brush just as you reach for it. You want to grab it away but decide not to. Not grabbing the brush is _____ for you.

HARD! hard easy EASY!

5. A kid is playing with a game that you want to play with. You ask the kid to give you the game but the kid says "no". Swearing at the kid is _____ for you.

HARD! hard easy EASY!

6. While playing football a kid prevents you from making a goal. You really want to get the kid back by pushing the kid hard but you decide not to. Not pushing the kid back is _____ for you.

HARD! hard easy EASY!

7. Some kids get mad and start fighting on the playground. You are caught in the middle of it. Fighting is _____ for you.

HARD! hard easy EASY!

8. During playtime some of your friends are teasing another kid. You feel like joining in the teasing with your friends, but decide not to. Not helping your friends tease the kid is _____ for you.

HARD! hard easy EASY!

9. On your way home from school a kid grabs your notebook and throws it in the dirt. You really feel like shoving the kid into a mud puddle nearby but decide not to. Not shoving the kid into

the mud puddle is _____ for you.
HARD! hard easy EASY!

10. The neighbourhood kids are playing a game that you don't like to play. You suggest a different game, but the kids say "no", laughing and yelling at the kids so that they have trouble playing the game is _____ for you.

HARD! hard easy EASY!

11. Your class is playing a game on the playground but one of the kids is not as good as the rest at the game. It takes some of the fun out of it. You feel like teasing the kid and calling the kid names, but decide not to. Not calling the kid names is _____ for you.

HARD! hard easy EASY!

12.At the end of playtime you run to the drinking fountain to get a drink of water. Another kid is also running to the drinking fountain. Pushing the other kid so that you can get there first is _____ for you.

HARD! hard easy EASY!

13.While playing football, one of your teammates is not paying attention and lets the ball get stolen away by the other team. Shouting at you teammate and calling your teammate a crummy player is _____ for you.

HARD! hard easy EASY!

14. Getting on the bus for a field trip a kid bumps into you. Kicking the kid is _____ for you.

HARD! hard easy EASY!

15. One of the little neighbourhood kids keeps tagging along while you are outside playing with your friends. You feel like hurting the kid's feelings to make the kid go away but decide not to. Not teasing the kid is _____ for you.

HARD! hard easy EASY!

16. In the cafeteria a kid knocks you milk all over and really makes a mess. You really want to get the kid back by knocking the kid's drink all over, but decide not to do it. Not knocking over the kid's drink is _____ for you.

HARD! hard easy EASY!

The above items comprise the following scales :-

Items - 1 ; 5 ; 10 ; 13 - aggressive verbal

Items - 2 ; 7 ; 12 ; 14 - aggressive physical

Items - 3 ; 8 ; 11 ; 15 - inhibition of verbal aggression

Items - 4 ; 6 ; 9 ; 16 - inhibition of physical aggression

In this questionnaire a social situation is described and the child is required to indicate his or her ability to perform a specified behaviour in that situation.

ASSESSMENT OF COGNITIVE DISTORTIONS :-

CHILD CUED INTO EACH SITUATION AND ASKED TO PAY PARTICULAR ATTENTION TO THE TARGET BOY/GIRL IN EACH SITUATION.

GENDER :- _____ AGE :- _____

SCENE 1 - KEPT IN OVER PLAYTIME
WHAT DO YOU THINK IS GOING THROUGH THE BOY'S/GIRL'S MIND IN THIS SITUATION ?

WHAT WOULD GO THROUGH YOUR MIND IF YOU WERE IN A SIMILAR SITUATION ?

SCENE 2 - RIPPED JUMPER
WHAT DO YOU THINK IS GOING THROUGH THE BOY'S/GIRL'S MIND IN THIS SITUATION ?

WHAT WOULD GO THROUGH YOUR MIND IF YOU WERE IN A SIMILAR SITUATION ?

SCENE 3 - SIBLING TAKING STUFF
WHAT DO YOU THINK IS GOING THROUGH THE BOY'S/GIRL'S MIND IN THIS SITUATION ?

WHAT WOULD GO THROUGH YOUR MIND IF YOU WERE IN A SIMILAR SITUATION ?

SCENE 4 - TALKING IN CLASS
WHAT DO YOU THINK IS GOING THROUGH THE BOY'S/GIRL'S MIND IN THIS SITUATION ?

WHAT WOULD GO THROUGH YOUR MIND IF YOU WERE IN A SIMILAR SITUATION ?

SCENE 5 - NOT BEING ALLOWED TO JOIN IN
WHAT DO YOU THINK IS GOING THROUGH THE BOY'S/GIRL'S MIND IN THIS SITUATION ?

WHAT WOULD GO THROUGH YOUR MIND IF YOU WERE IN A SIMILAR SITUATION ?

SCENE 6 - WATCHING TV
WHAT DO YOU THINK IS GOING THROUGH THE BOY'S/GIRL'S MIND IN THIS SITUATION ?

WHAT WOULD GO THROUGH YOUR MIND IF YOU WERE IN A SIMILAR SITUATION ?

SCENE 7 - WAITING IN CLASS
WHAT DO YOU THINK IS GOING THROUGH THE BOY'S/GIRL'S MIND IN THIS SITUATION ?

WHAT WOULD GO THROUGH YOUR MIND IF YOU WERE IN A SIMILAR SITUATION ?

SCENE 8 - TEASING
WHAT DO YOU THINK IS GOING THROUGH THE BOY'S/GIRL'S MIND IN THIS SITUATION ?

WHAT WOULD GO THROUGH YOUR MIND IF YOU WERE IN A SIMILAR SITUATION ?

SCENE 9 - COMPUTER GAME
WHAT DO YOU THINK IS GOING THROUGH THE BOY'S/GIRL'S MIND IN THIS SITUATION ?

WHAT WOULD GO THROUGH YOUR MIND IF YOU WERE IN A SIMILAR SITUATION ?

SCENE 10 - ACCIDENT
WHAT DO YOU THINK IS GOING THROUGH THE BOY'S/GIRL'S MIND IN THIS SITUATION ?

WHAT WOULD GO THROUGH YOUR MIND IF YOU WERE IN A SIMILAR SITUATION ?

APPENDIX 5 - EXPLORATORY DATA ANALYSIS :-

- HISTOGRAMS WITH NORMAL CURVES OF THE DISTRIBUTION OF SCORES IN EACH GROUP

- BOX PLOTS OF EACH DISTRIBUTION SHOWING OUTLIERS

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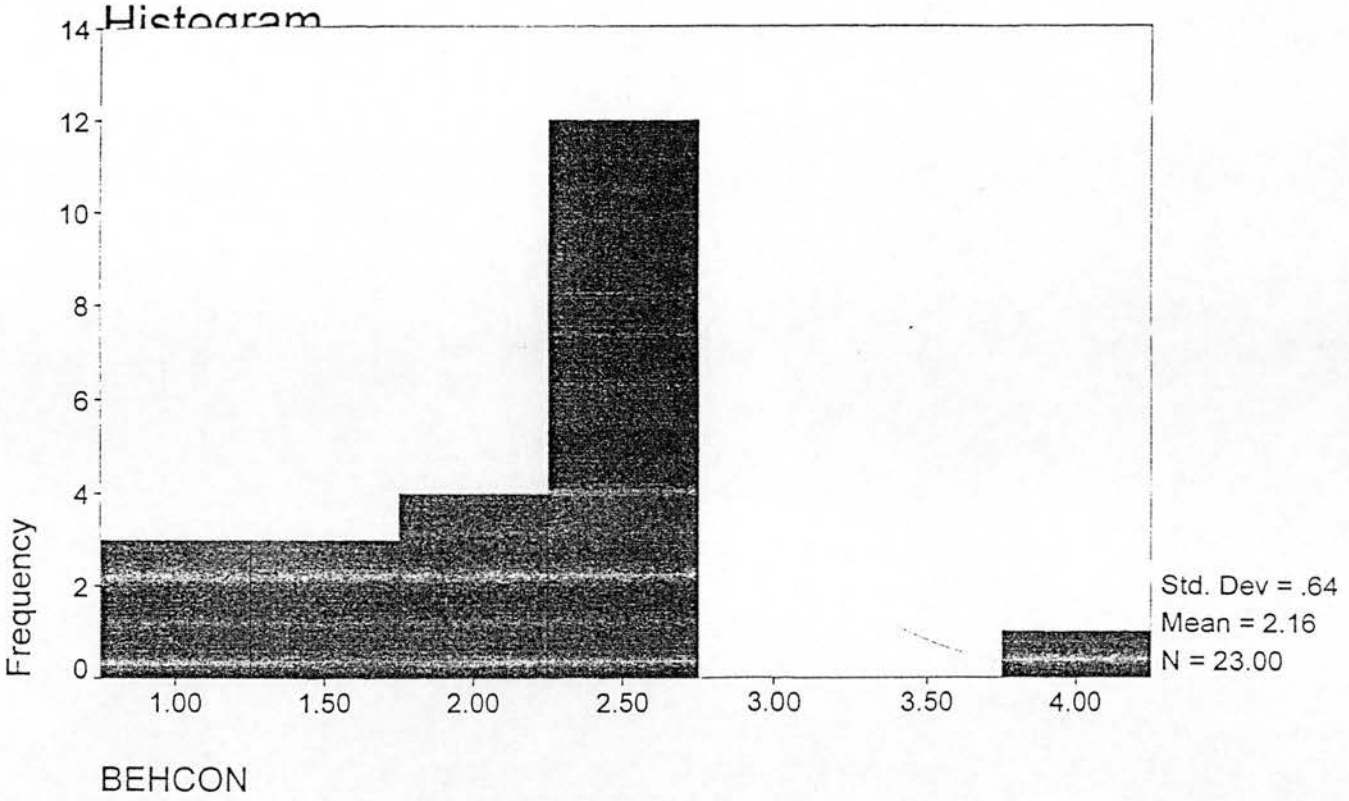
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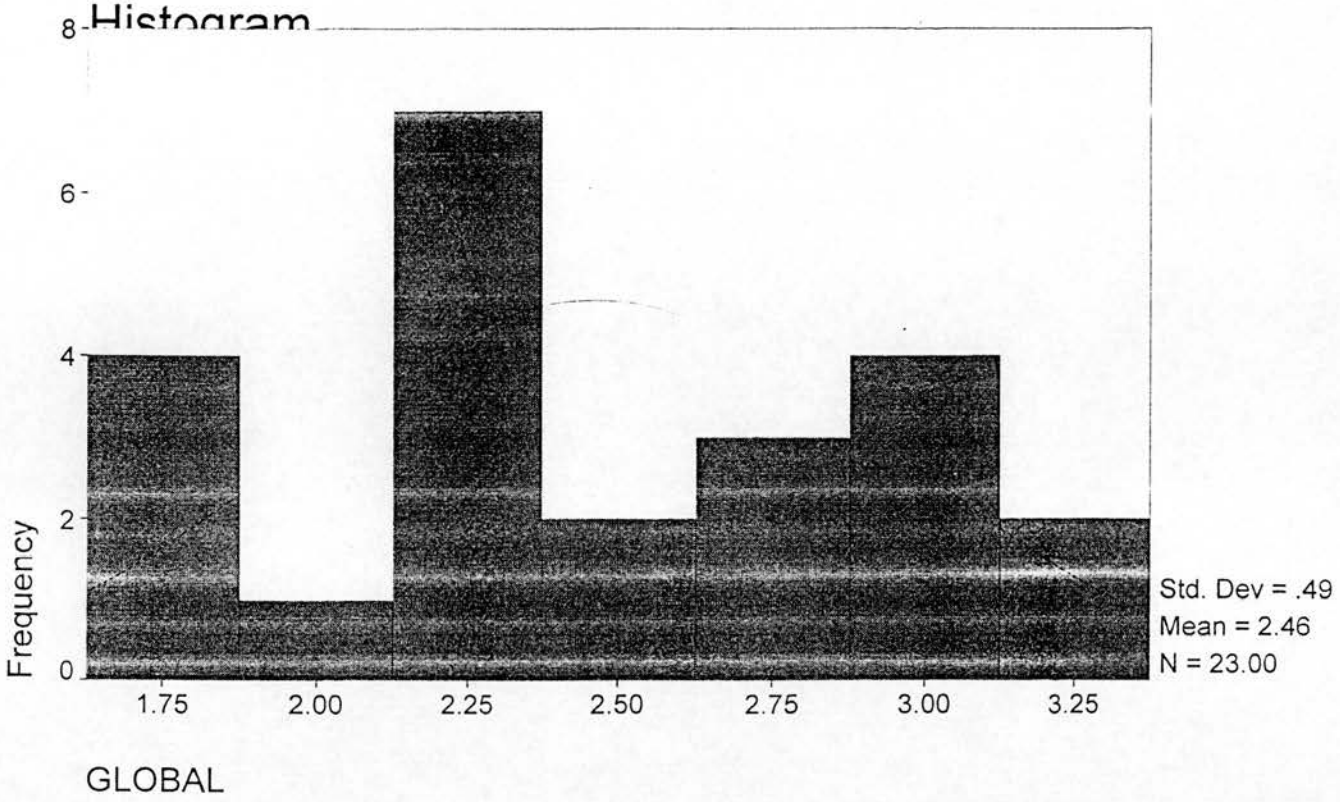
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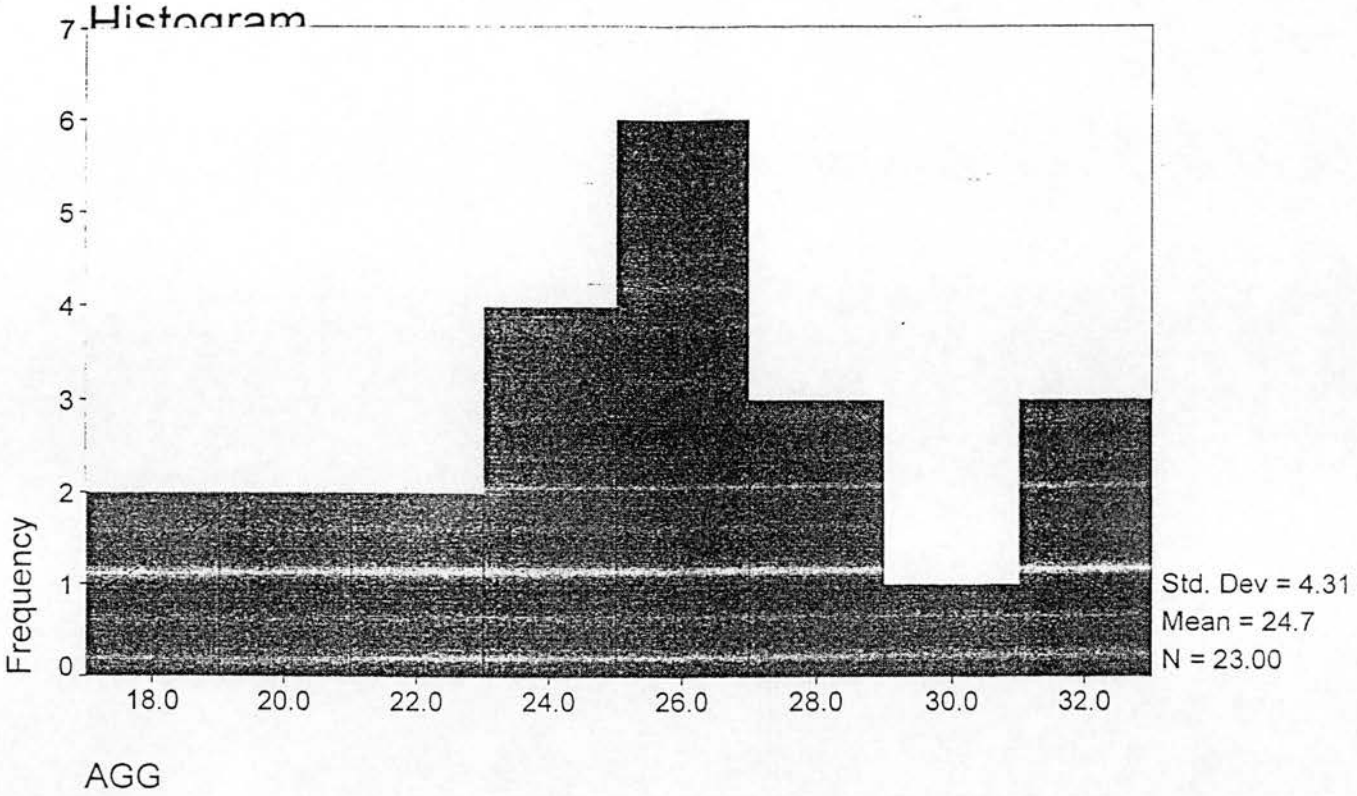
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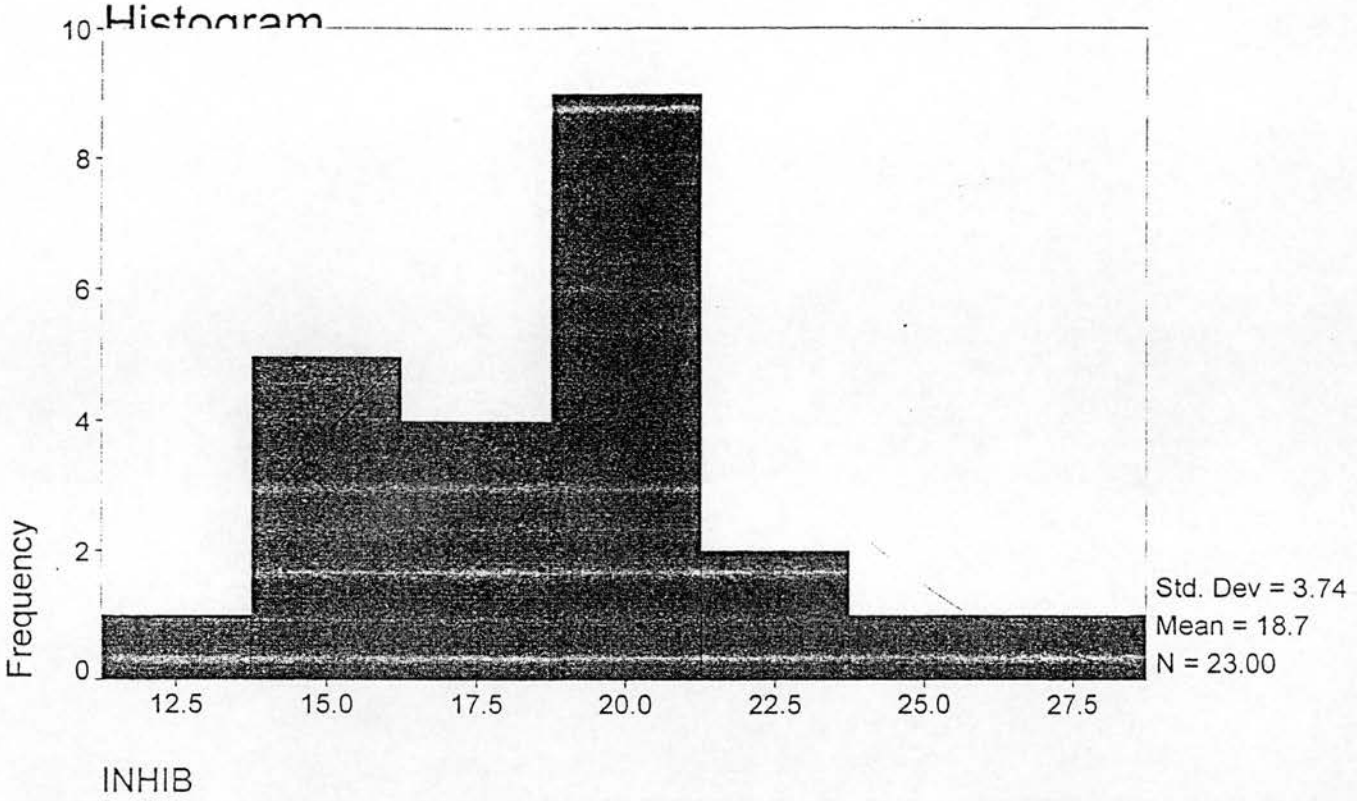
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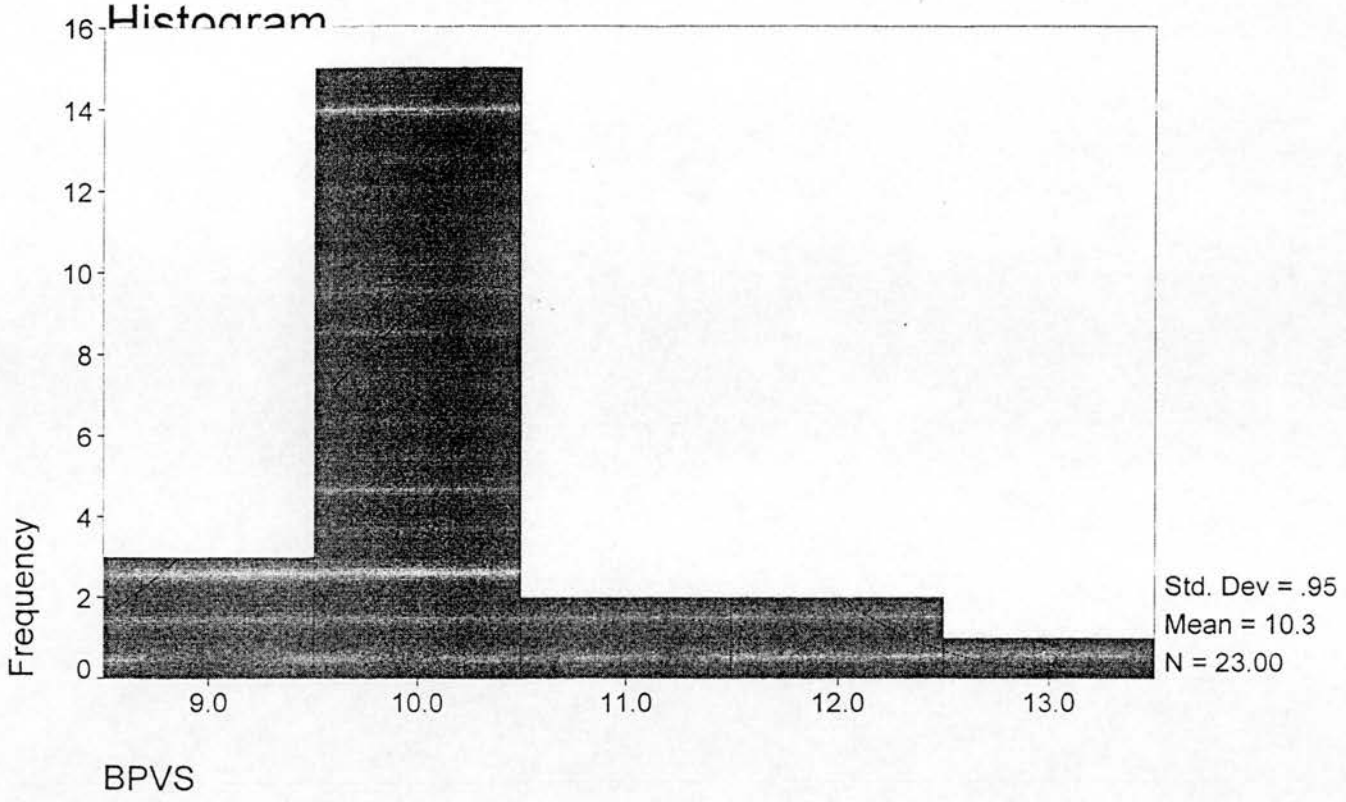
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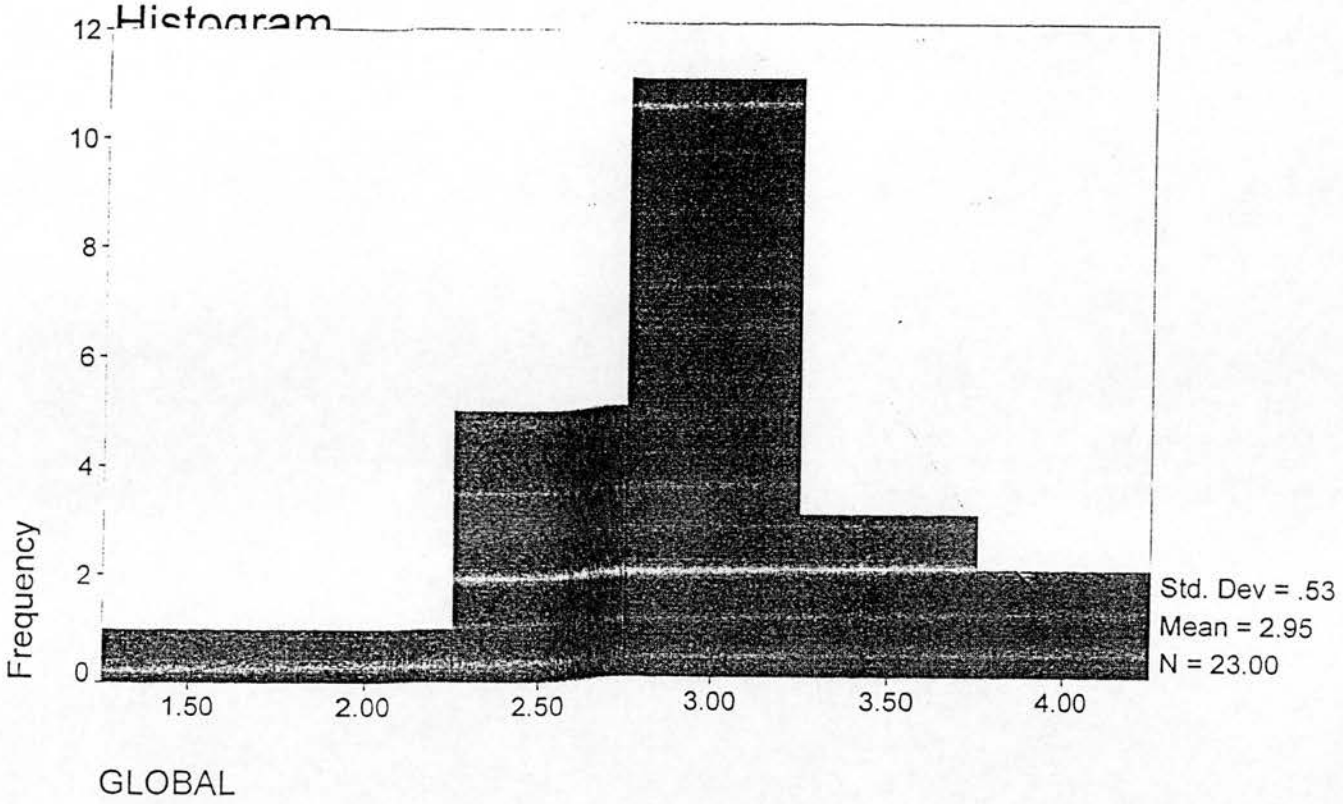
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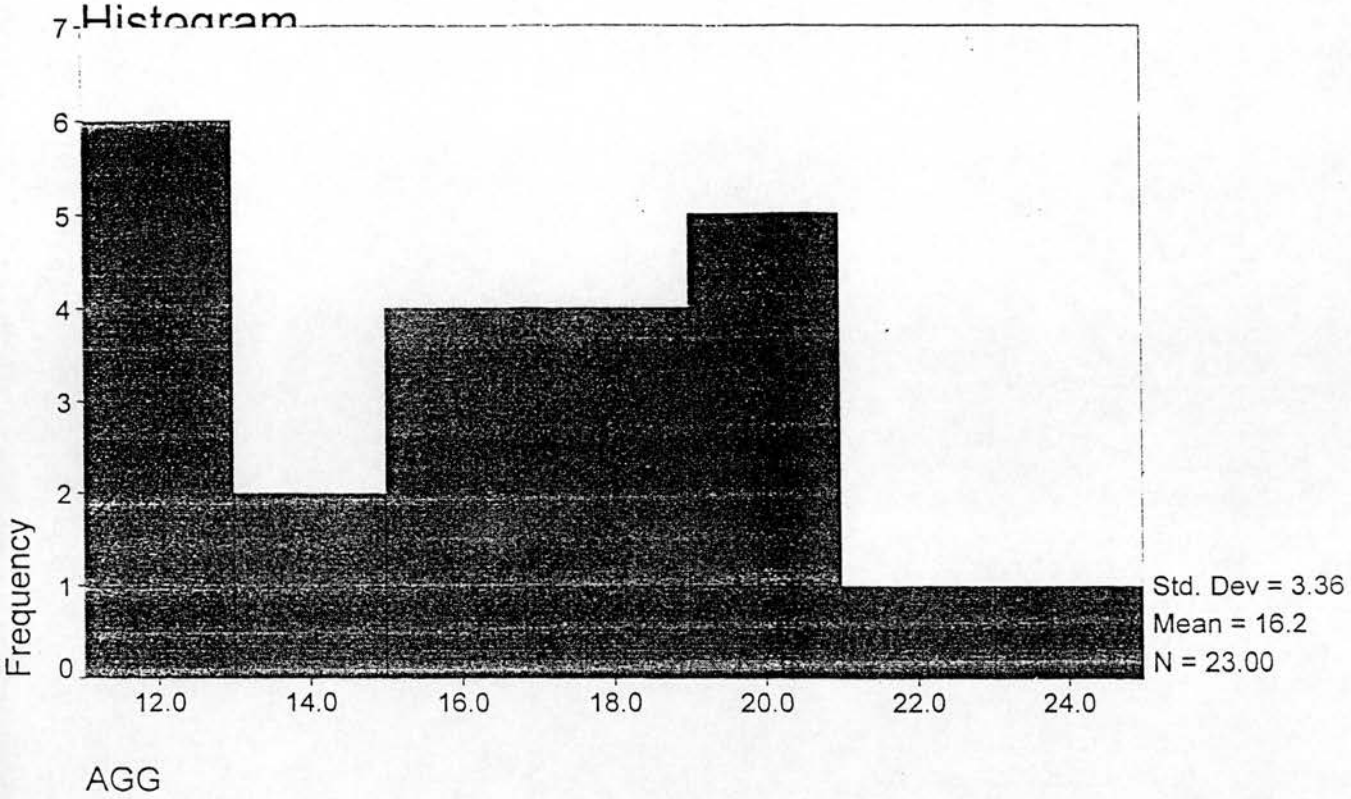
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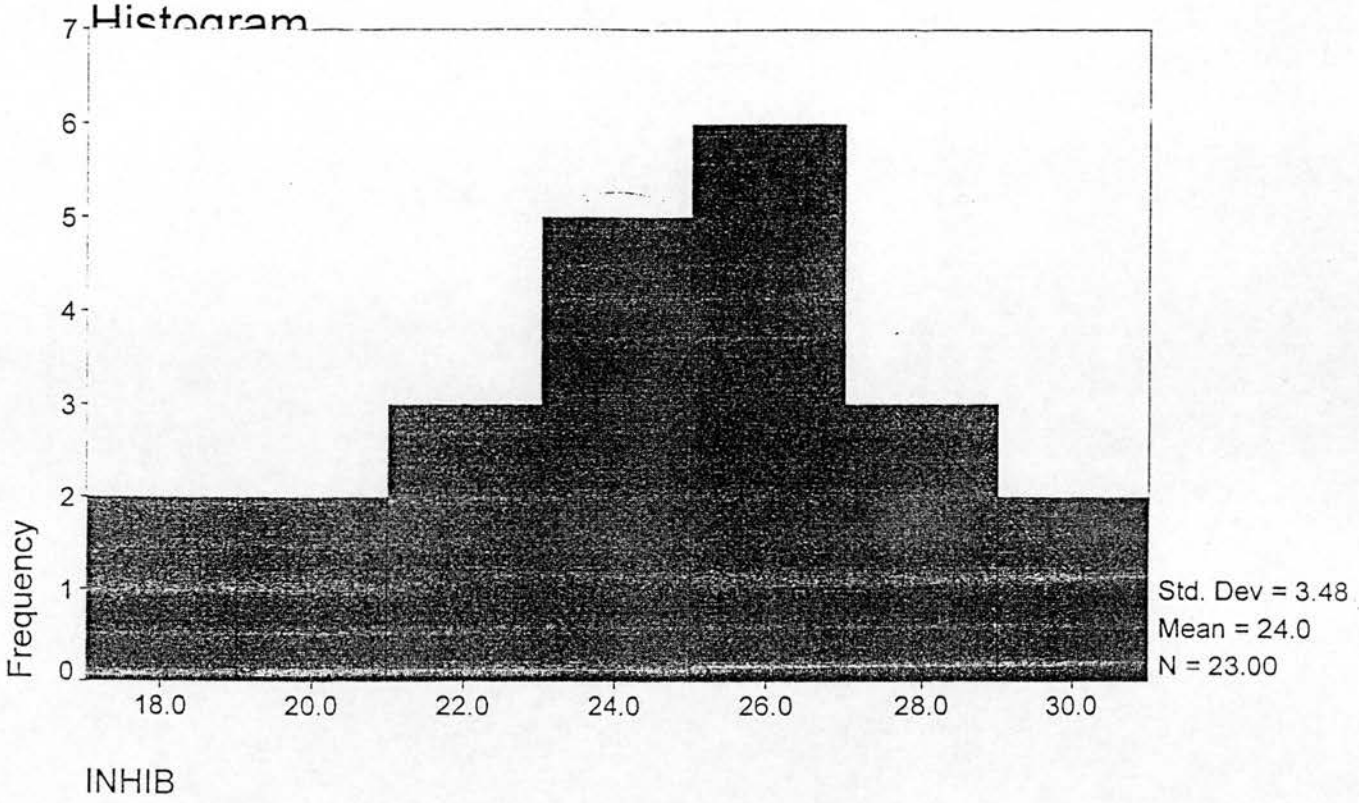
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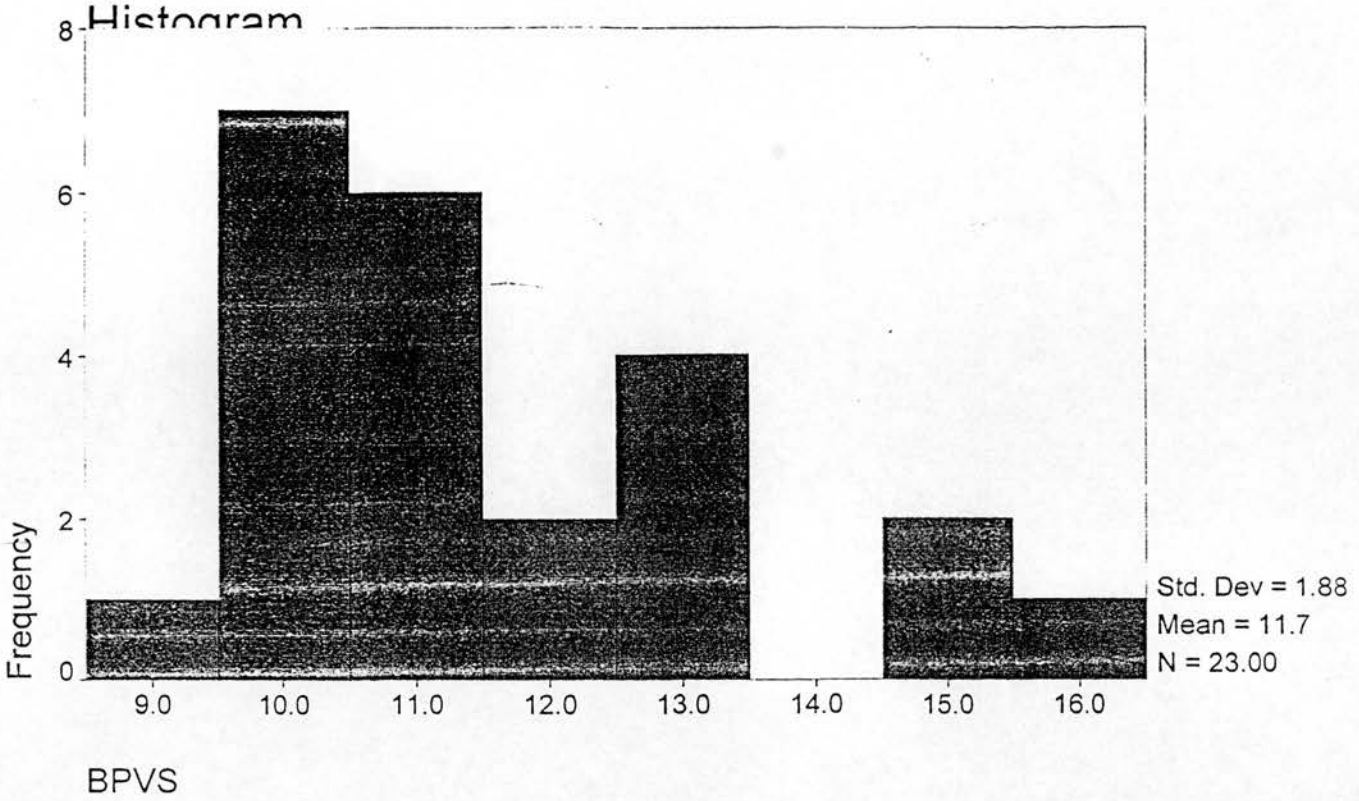
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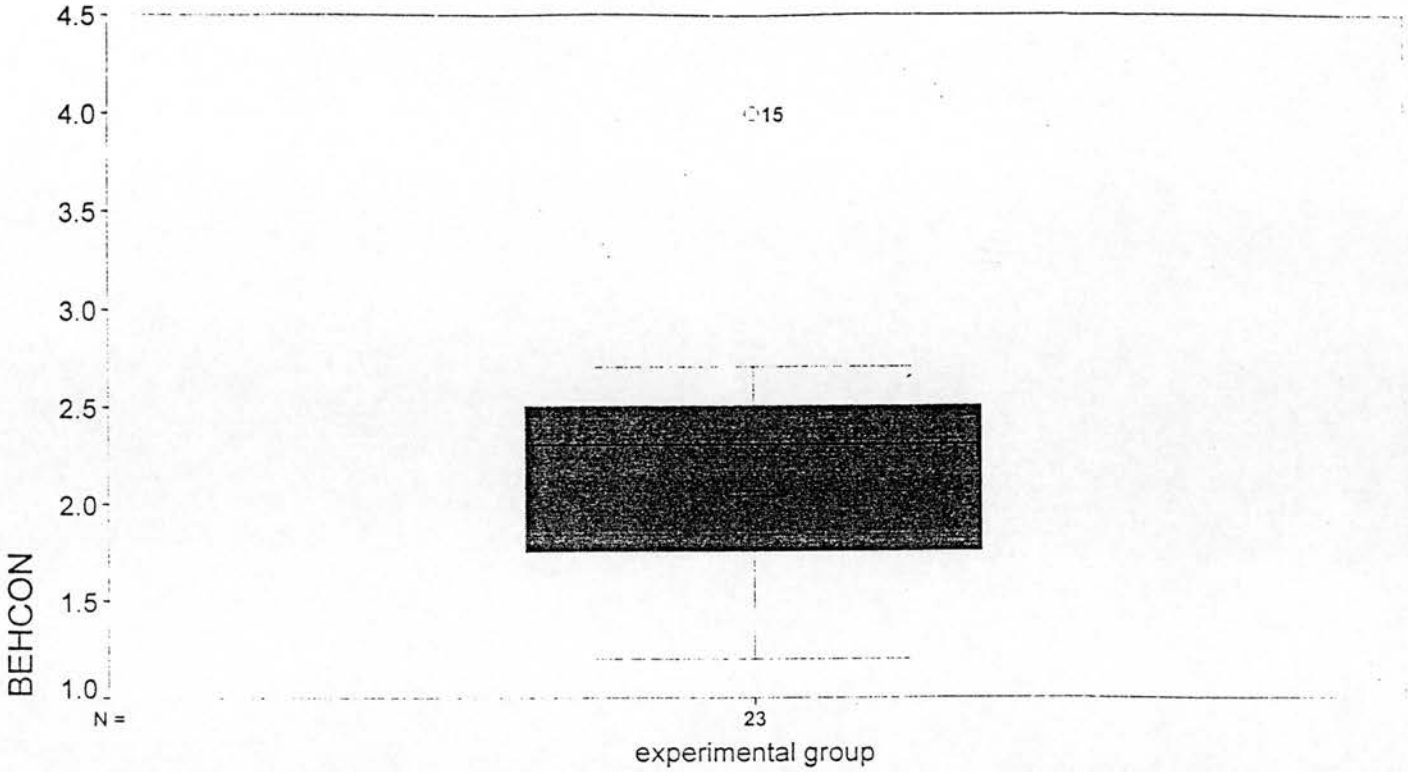

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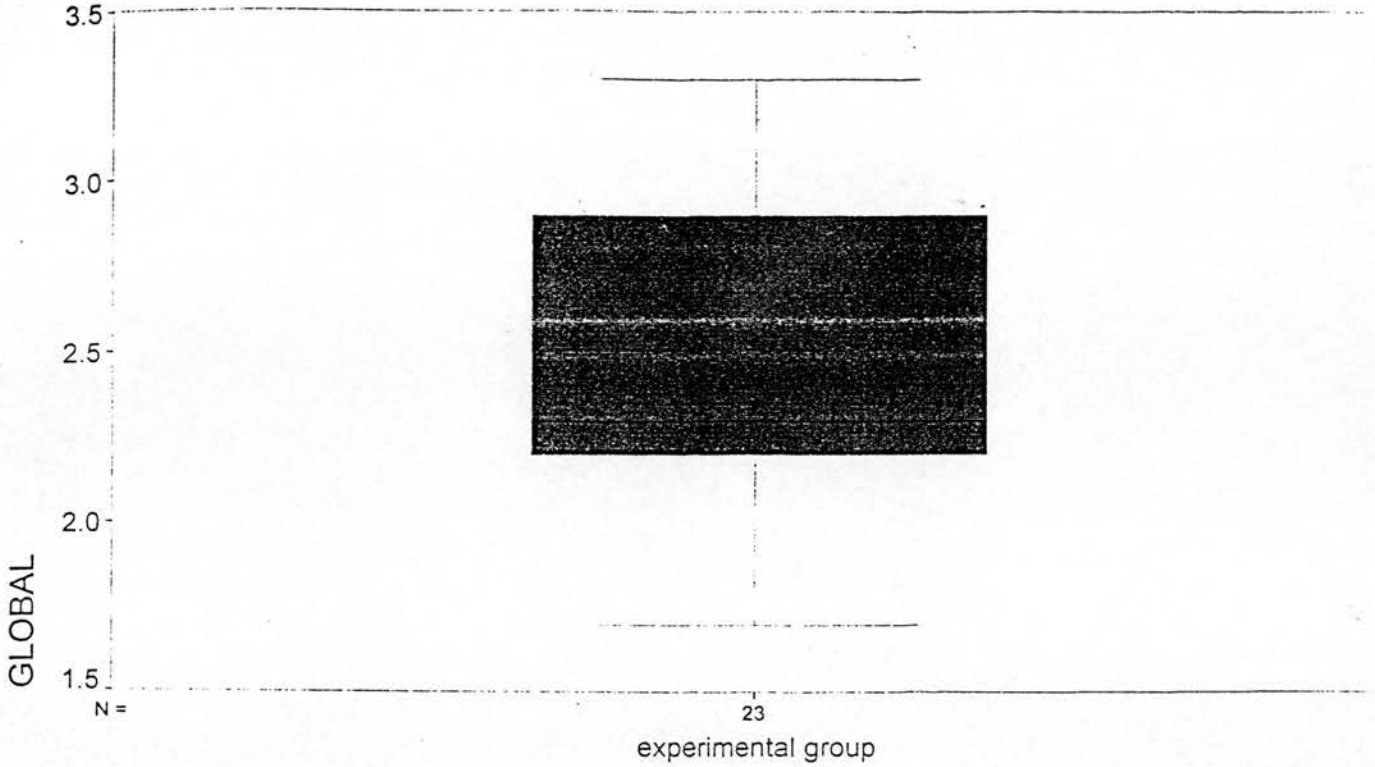

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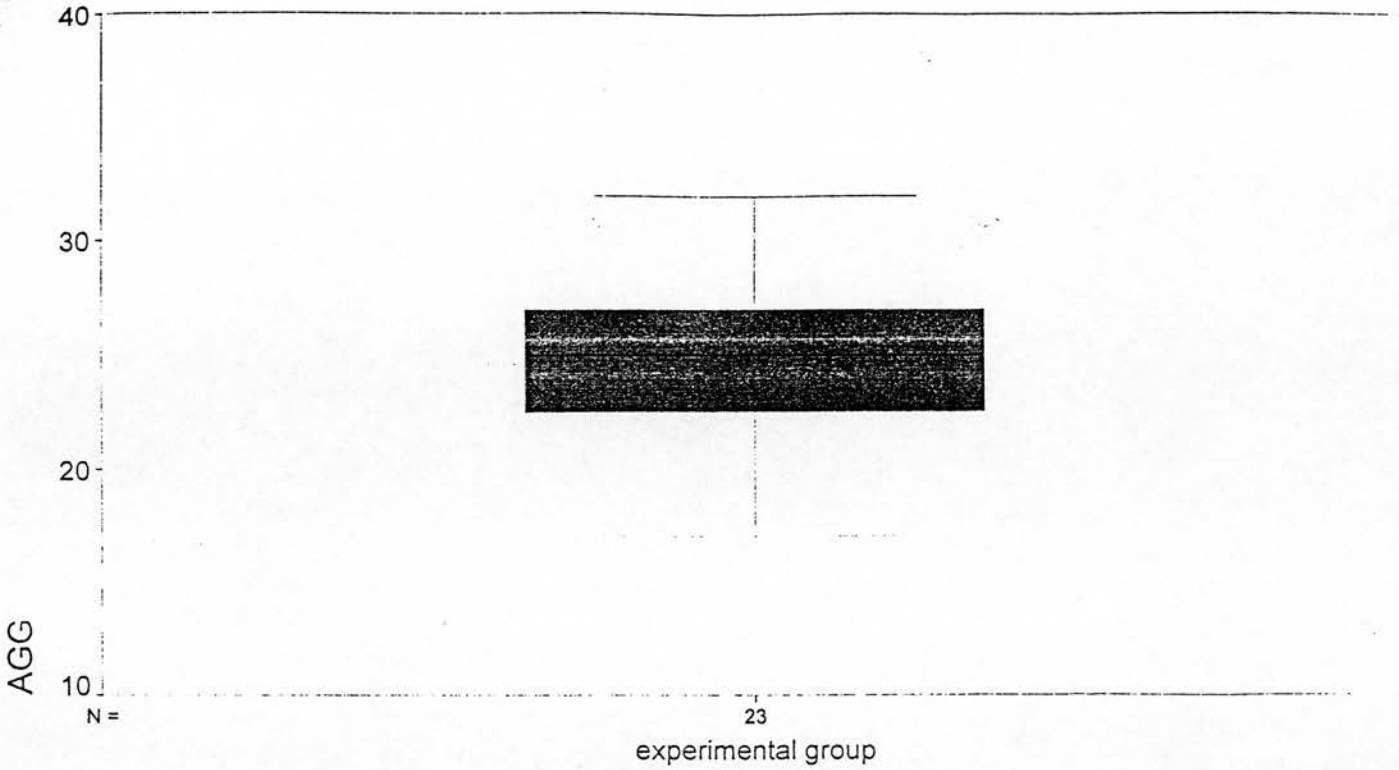

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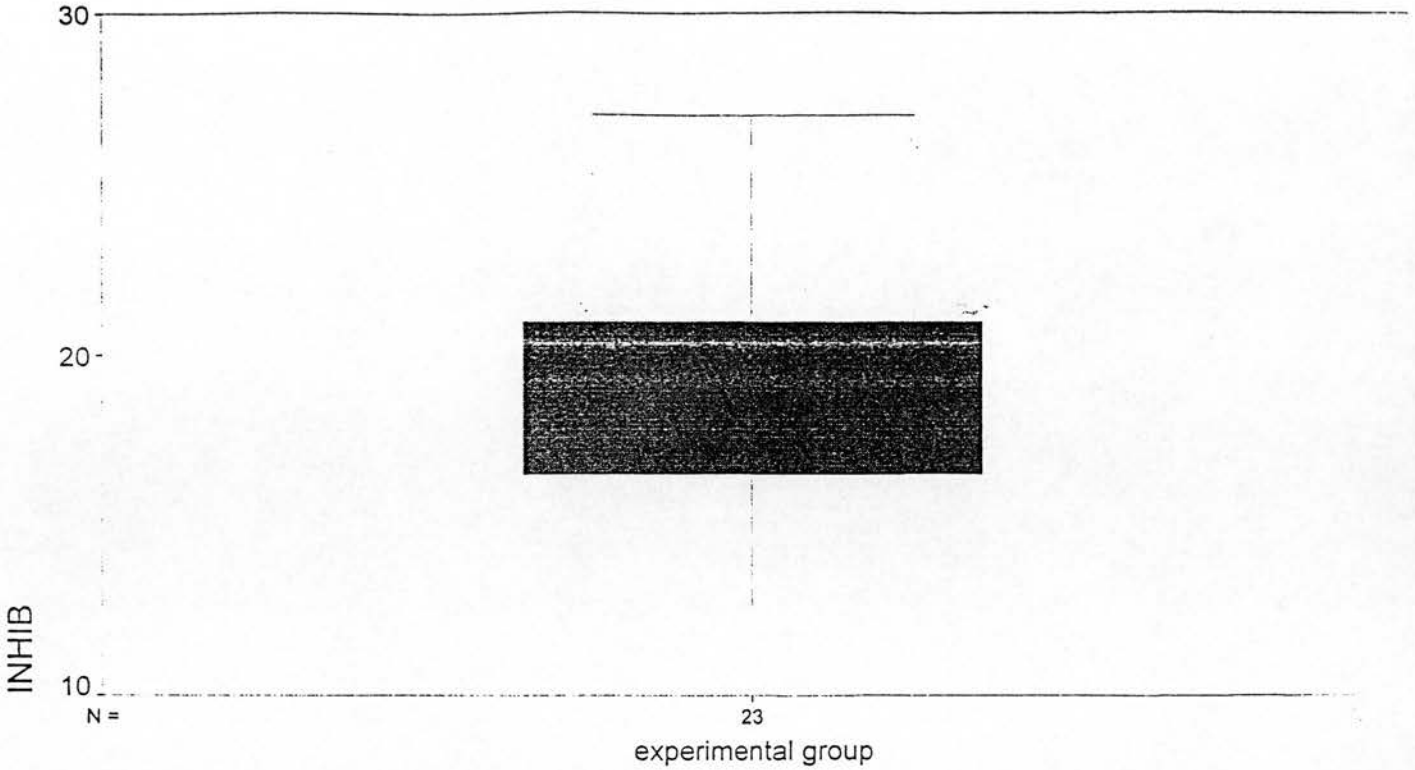

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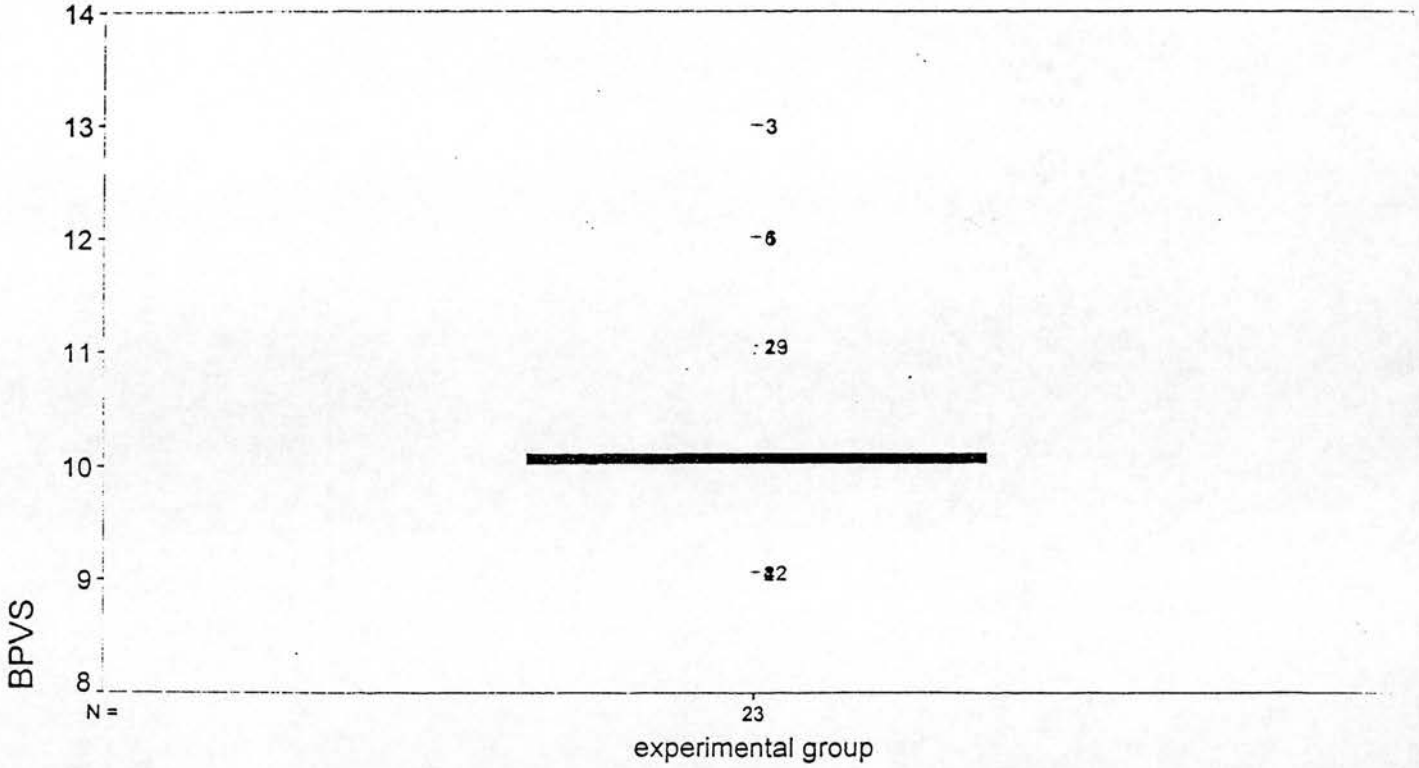

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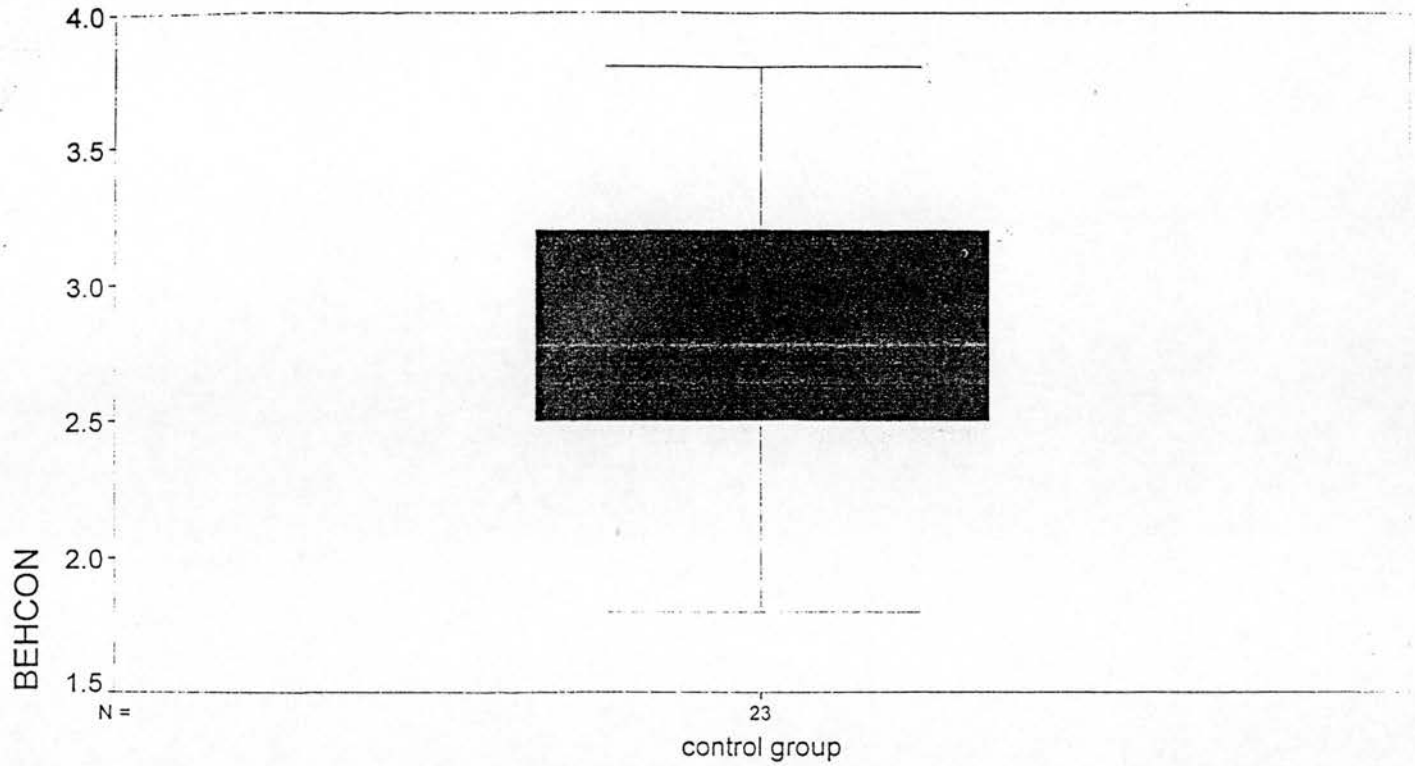

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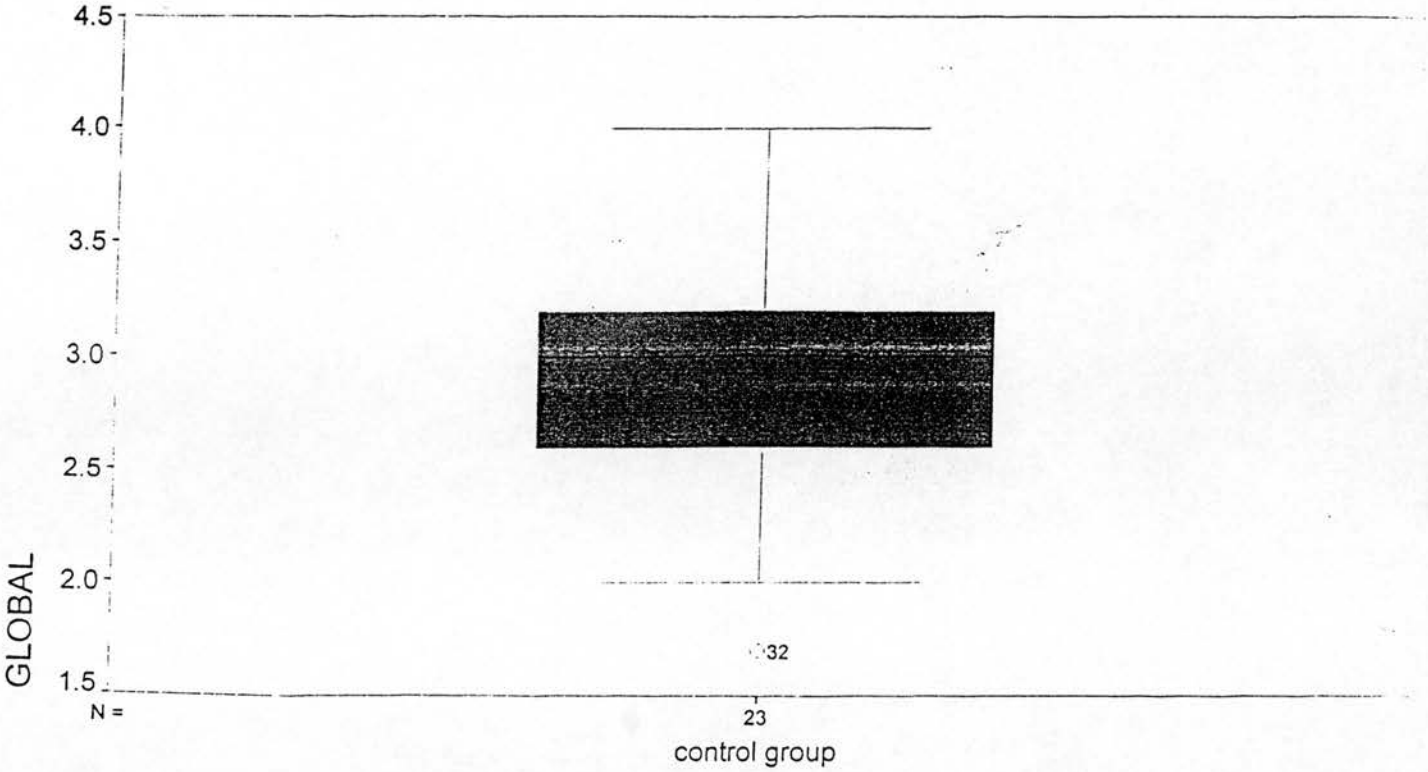
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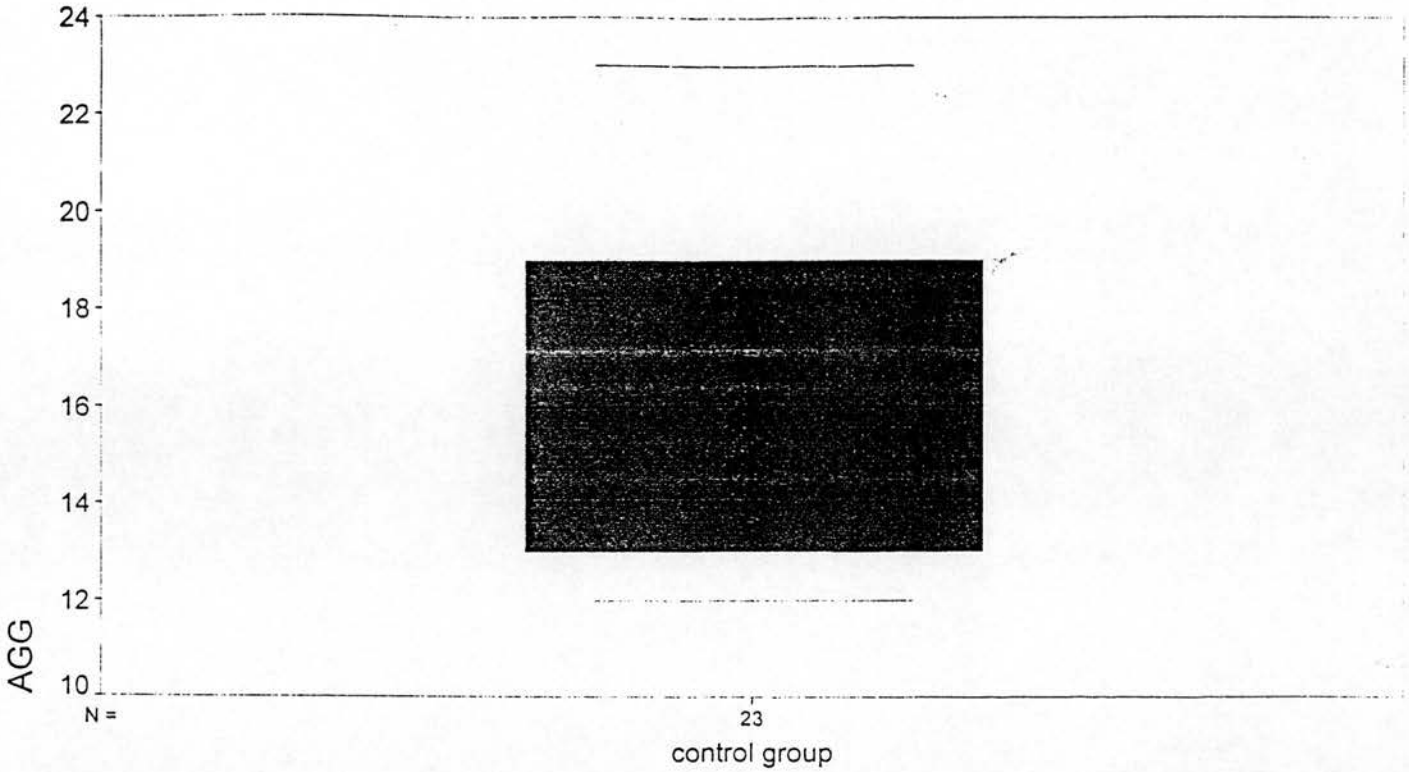
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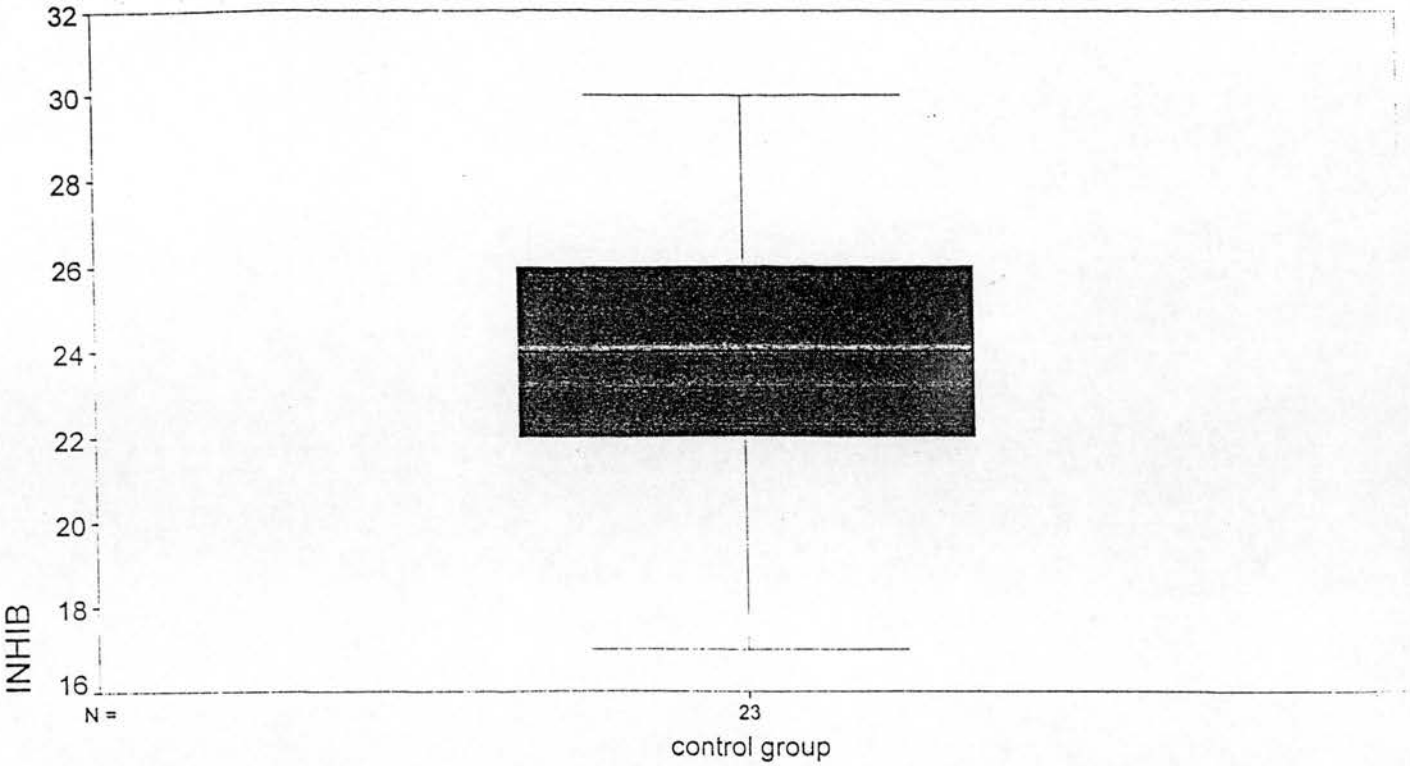
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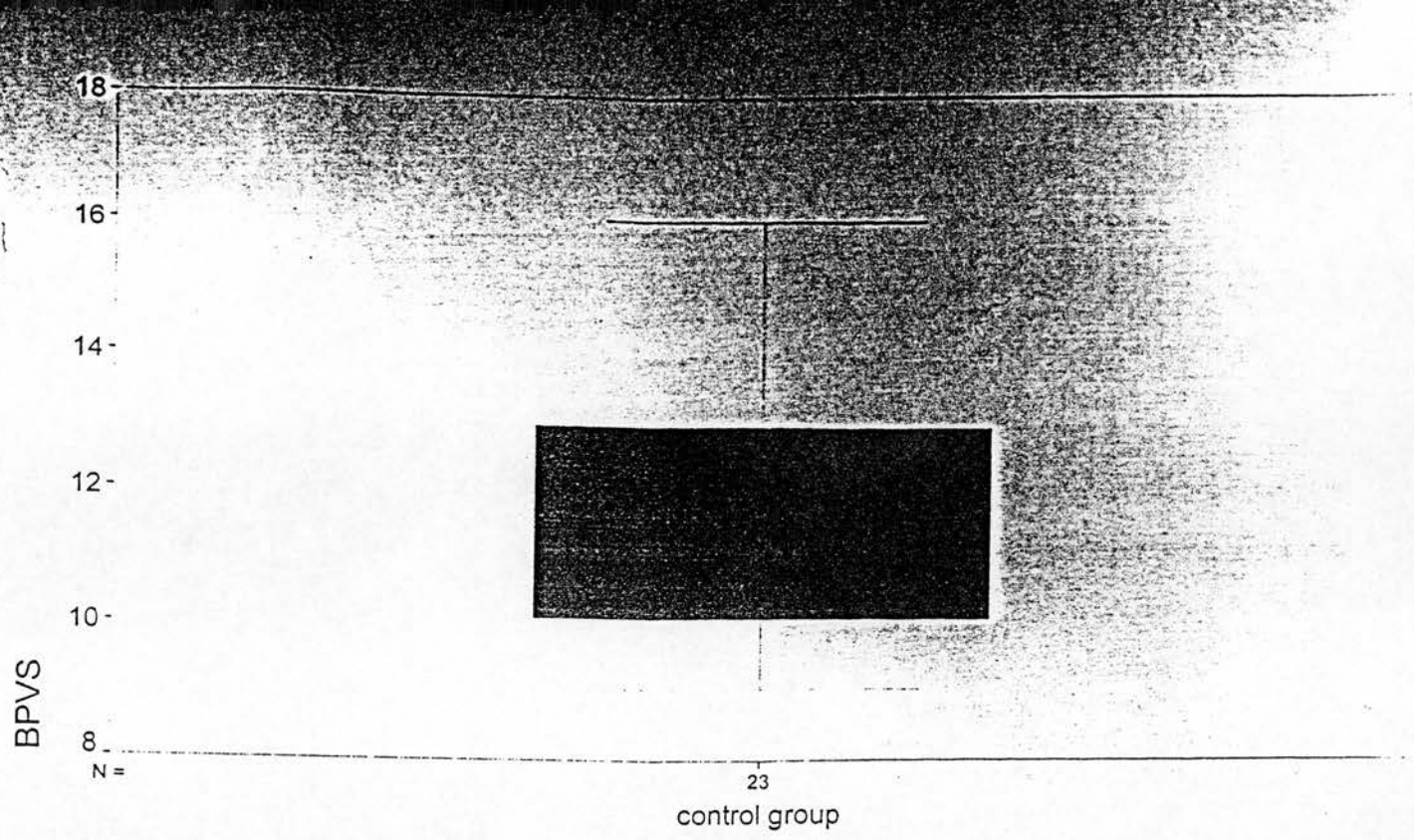
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APPENDIX 6 - COGNITIVE DISTORTIONS

- CATEGORY DESCRIPTIONS
- EXAMPLES OF RESPONSES GIVEN IN ALL 10 SITUATIONS GIVEN BY EXPERIMENTAL AND CONTROL GROUP

CATEGORISATION OF STATEMENTS MADE IN RESPONSE TO SCENARIOS

EMOTIONAL RESPONSES

Does the statement produced represent an expression of emotion and if so, how is this directed ? Is it :-

- negative towards self - eg sadness, hostility (ENS) - 1

eg I am angry / upset with myself

- negative towards others - eg hostility, jealousy (ENO) - 2

eg I am angry / upset with (eg teacher, peer)

- positive toward self (EPS) - 3

- positive toward others (EPO) - 4

- non-directional (END) - 5

BEHAVIOURAL RESPONSES

Does the statement produced represent a desire to perform certain actions ? Are these :-

- negative towards self - eg self-harm, engaging in dangerous behaviour (BNS) - 6

eg I am going to hurt myself / get drunk

- negative towards others - eg acts of aggression both verbal and physical (BNO) - 7

eg I am going to hit / throw something at (eg teacher , peer)

- positive towards self - eg a useful coping strategy
  positive idea about what could do in future if situation arose again (BP - 8

eg I am going to just get on with my work / ignore them
Next time, I will try to get things done quicker / ask nicely

- positive toward others (BPO) - 9

- non-directional (BND) - 10

COGNITIVE RESPONSES

Does the statement represent a specific thought ? Is it :-

- negative towards self - eg should statements , blame statements, overgeneralisation (CNS) -

eg I should have been more careful
I am to blame for ....
Everyone is against me / they are always doing that to me

- negative towards others - ~~eg notion of unfairness~~ (CNO) - 12

eg This is unfair
They are nasty people / unfair
The teacher is a .....

- positive towards self (CPS) - 13

- positive towards others (CPO) - 14

- non-directional (CND) - 15

Also :-
may be useful to categorise responses according to "appropriateness" (taking account of context of situation)
eg on a 3 point scale
1 - appropriate for the situation
2 - slightly inappropriate "
3 - inappropriate for the situation

SITUATION 1 - THWARTED (CLASSROOM)

EXPERIMENTAL GROUP			CONTROL GROUP		
RESPONSE	CAT.	APP.*	RESPONSE	CAT.	APP.*
I AM ANNOYED WITH THE TEACHER	EMOTION / -VE OTHERS	1	THAT'S UNFAIR	COGNITION/ NON-DIRECTIONAL	1
I WANT TO KICK AND HURT THE TEACHER	BEHAVIOUR/-VE OTHERS	3	I DIDN'T CHECK MY WORK	COGNITION/-VE SELF	2
I HAVE ALOT OF BAD THOUGHTS FRO TEACHER	COGNITION /-VE OTHERS	2	I'LL TRY AND GET MY WORK FINISHED	BEHAVIOUR/+VE SELF	1
I'LL JUST GET ON WITH THE WORK	BEHAVIOUR/+VE SELF	1	I'M ANNOYED WITH MYSELF	EMOTION/ -VE SELF	1
I SHOULD HAVE LISTENED AND TAKEN TIME WITH IT**	COGNITION/-VE SELF	2	WHY DO I HAVE TO DO THIS AGAIN?	COGNITION/ NON-DIRECTIONAL	1
I'LL JUST WALK OUT	BEHAVIOUR/ NON-DIRECTIONAL	3	I'M BORED	EMOTION/ NON-DIRECTIONAL	1

*- APPROPRIATENESS SCALE :- 1 - APPROPRIATE FOR THE SITUATION
2- SLIGHTLY INAPPROPRIATE
3 - INAPPROPRIATE

** RESPONSES WHICH WERE DIFFICULT TO CATEGORISE

SITUATION 2 - BLAME (PEERS)

EXPERIMENTAL GROUP			CONTROL GROUP		
RESPONSE	**CAT.**	**APP.***	**RESPONSE**	**CAT.**	**APP.***
I AM VERY ANGRY WITH THE OTHERS	EMOTION / -VE OTHERS	2	IT'S NOT FAIR IF I HAVE TO PAY FOR IT	COGNITION/ NON-DIRECTIONAL	1
I AM GOING TO GET HIM BACK	BEHAVIOUR/-VE OTHERS	3	I DON'T LIKE THEM ANY MORE	COGNITION/-VE OTHERS	2
I'LL GET IN TROUBLE FROM MUM **	COGNITION /-VE SELF	2	I FEEL GUILTY AND REGRET WHAT I DID	EMOTION /-VE SELF	2
I WANT TO KILL THE BOY THAT COMPLAINED	BEHAVIOUR/-VE OTHERS	3	I'LL BE IN TROUBLE NOW **	COGNITION/-VE SELF	1
I'LL JUST IGNORE THEM	BEHAVIOUR/+VE SELF	1	I DIDN'T MEAN TO DO IT **	COGNITION NON-DIRECTIONAL	1
NO-ONE ELSE TO BLAME BUT ME	COGNITION/-VE SELF	2	WHY DIDN'T THE OTHERS ** GET THE BLAME AS WELL	COGNITION NON-DIRECTIONAL	1

*- APPROPRIATENESS SCALE :- 1 - APPROPRIATE FOR THE SITUATION
2- SLIGHTLY INAPPROPRIATE
3 - INAPPROPRIATE

** RESPONSES WHICH WERE DIFFICULT TO CATEGORISE

SITUATION 3 - PROVOCATION (HOME)

EXPERIMENTAL GROUP			CONTROL GROUP		
RESPONSE	**CAT.**	**APP.***	**RESPONSE**	**CAT.**	**APP.***
I'M GOING TO GET MY BROTHER BACK	BEHAVIOUR/-VE OTHERS	2	I WILL TELL MUM	BEHAVIOUR/+VE SELF	1
I SHOULD HAVE HIDDEN MY THINGS	COGNITION/-VE SELF	3	WHY DOES SHE ALWAYS TAKE MY STUFF?**	COGNITION NON-DIRECTIONAL	1
MY BROTHER'S A THIEF	COGNITION/-VE OTHERS	2	I'M ANGRY WITH MY BROTHER	EMOTION/-VE OTHERS	1
THIS HAPPENS TO ME ALL THE TIME	COGNITION/-VE SELF	2	I CAN'T TRUST MY BROTHER	COGNITION/-VE OTHERS	2
I WOULD LET HIM ** BORROW THINGS IF HE	COGNITION NON-DIRECTIONAL	1	MY BROTHER SHOULD HAVE ASKED	COGNITION/-VE OTHERS	1
I'LL STEAL MY BROTHER'S STUFF	BEHAVIOUR/-VE OTHERS	2	WHAT SHALL I DO TO GET TO GET MY BROTHER BACK?	COGNITION/-VE OTHERS	2

*- APPROPRIATENESS SCALE :- 1 - APPROPRIATE FOR THE SITUATION
2- SLIGHTLY INAPPROPRIATE
3 - INAPPROPRIATE

** RESPONSES WHICH WERE DIFFICULT TO CATEGORISE

SITUATION 4 - BLAME (CLASSROOM)

EXPERIMENTAL GROUP			CONTROL GROUP		
RESPONSE	**CAT.**	**APP.***	**RESPONSE**	**CAT.**	**APP.***
I AM ANNOYED WITH THE TEACHER	EMOTION/-VE OTHERS	1	I AM ANNOYED WITH THE TEACHER	EMOTION/-VE OTHERS	1
IT'S NOT FAIR - THEY WERE SPEAKING TO ME	COGNITION NON-DIRECTIONAL	1	WHY IS IT ALWAYS ME THAT GETS GAUGHT ?	COGNITION/-VE SELF	2
I'M JUST GOING TO GET ON WITH MY WORK	BEHAVIOUR/+VE SELF	1	THEY ARE TRYING TO GET ME IN TROUBLE**	COGNITION/-VE OTHERS	2
I HATE THE OTHERS AND THE TEACHER	EMOTION/-VE OTHERS	3	I WAS JUST TRYING TO ANSWER THEM	COGNITION NON-DIRECTIONAL	1
I'LL THROW A TABLE ACROSS THE CLASS**	BEHAVIOUR/-VE OTHERS	3	I'M UNHAPPY WITH THE OTHER KIDS	EMOTION/-VE OTHERS	1
I FEEL FRUSTRATED AND VER ANGRY WITH THEM	EMOTION/-VE OTHERS	3	I'LL GET THEM BACK	BEHAVIOUR/-VE OTHERS	3

*- APPROPRIATENESS SCALE :- 1 - APPROPRIATE FOR THE SITUATION
2- SLIGHTLY INAPPROPRIATE
3 - INAPPROPRIATE

** RESPONSES WHICH WERE DIFFICULT TO CATEGORISE

SITUATION 5 - THWARTED (PEERS)

EXPERIMENTAL GROUP

RESPONSE	CAT.	APP.*
I AM VERY ANGRY WITH THOSE BOYS	EMOTION/-VE OTHERS	2
I SHOULD GET A GAME**	COGNITION NON-DIRECTIONAL	2
THEY DON'T LIKE ME VERY MUCH	COGNITION/-VE SELF	2
THEY ARE JUST SELFISH	COGNITION/-VE OTHERS	1
I'M GOING TO PUNCH THEM	BEHAVIOUR/-VE OTHERS	3
I WILL BUY MY OWN FOOTBALL AND NOT LET THEM JOIN IN	BEHAVIOUR/+VE SELF	1

CONTROL GROUP

RESPONSE	CAT.	APP.*
IT'S UNFAIR - I'M BEING LEFT OUT**	COGNITION/-VE OTHERS	1
THEY ARE NOT GOOD FRIENDS FOR DOING THAT	COGNITION/-VE OTHERS	1
I MIGHT STAY AND ANNOY THEM	BEHAVIOUR/-VE OTHERS	2
I WISH I COULD PLAY BETTER	COGNITION/-VE SELF	2
I'LL JUST IGNORE THEM	BEHAVIOUR/+VE SELF	1
THEY ARE PROBABLY JEALOUS OF ME	COGNITION/+VE SELF	1

*- APPROPRIATENESS SCALE :- 1 - APPROPRIATE FOR THE SITUATION
2- SLIGHTLY INAPPROPRIATE
3 - INAPPROPRIATE

** RESPONSES WHICH WERE DIFFICULT TO CATEGORISE

SITUATION 6 - BLAME (HOME)

EXPERIMENTAL GROUP			CONTROL GROUP		
RESPONSE	**CAT.**	**APP.***	**RESPONSE**	**CAT.**	**APP.***
IT'S NOT FAIR -I'VE GOT TO GIVE VIDEO BACK	COGNITION NON-DIRECTIONAL	1	I'M ANNOYED WITH MY BROTHER	EMOTION/-VE OTHERS	1
MY BROTHER ALWAYS GETS TO WATCH WHAT HE WANTS	COGNITION/-VE OTHERS	2	I'LL JUST GO UPSTAIRS AND WATCH MY OWN TV	BEHAVIOUR/+VE SELF	1
I DON'T WANT TO HAVE HIM AS A BROTHER	COGNITION/-VE OTHERS	3	I SHOULDN'T HAVE BARGED IN	COGNITION/-VE SELF	2
I HATE MY BROTHER	EMOTION/-VE OTHERS	2	I AM THINKING OF A WAY TO GET HIM BACK	COGNITION/-VE OTHERS	2
I SHOULDN'T HAVE TRIED TO GET IT - I FEEL STUPID	COGNITION/-VE SELF	3	I DIDN'T WANT TO WATCH TV ANYWAY	COGNITION NON-DIRECTIONAL	2
WHY AM I ALWAYS GETTING INTO TROUBLE?	COGNITION/-VE SELF	2	I MIGHT ASK TO BORROW THE VIDEO AGAIN	BEHAVIOUR/+VE SELF	1

*- APPROPRIATENESS SCALE :- 1 - APPROPRIATE FOR THE SITUATION
2- SLIGHTLY INAPPROPRIATE
3 - INAPPROPRIATE

** RESPONSES WHICH WERE DIFFICULT TO CATEGORISE

SITUATION 7 - PROVOCATION (CLASSROOM)

EXPERIMENTAL GROUP			CONTROL GROUP		
RESPONSE	CAT.	APP.*	RESPONSE	CAT.	APP.*
I AM ANNOYED WITH THE TEACHER	EMOTION/-VE OTHERS	1	I DON'T LIKE THE TEACHER	EMOTION/-VE OTHERS	2
THEY ARE GETTING ALL THE ATTENTION **	COGNITION/-VE OTHERS	2	I MIGHT NEVER GET HELP **	COGNITION NON-DIRECTIONAL	2
THE TEACHER IS NOT KEEPING HER PROMISE	COGNITION/-VE OTHERS	2	PERHAPS SHE DOESN'T KNOW I'M WAITING	COGNITION/+VE SELF	1
I'LL WALK OUT OF THE CLASS	BEHAVIOUR NON-DIRECTIONAL	3	I'LL JUST GET ON WITH IT	BEHAVIOUR/+VE SELF	1
EVERYONE ELSE GETS MORE ATTENTION THAN ME**	COGNITION /-VE SELF	2	SHE'S GOT NO TIME FOR ME	COGNITION/-VE SELF	2
THE TEACHER IS IGNORING ME **	COGNITION/-VE SELF	3	THIS TEACHER IS AWFULLY SLOW	COGNITION NON-DIRECTIONAL	1

*- APPROPRIATENESS SCALE :- 1 - APPROPRIATE FOR THE SITUATION
2- SLIGHTLY INAPPROPRIATE
3 - INAPPROPRIATE

** RESPONSES WHICH WERE DIFFICULT TO CATEGORISE

SITUATION 8 - PROVOCATION (PEERS)

EXPERIMENTAL GROUP			CONTROL GROUP		
RESPONSE	**CAT.**	**APP.***	**RESPONSE**	**CAT.**	**APP.***
I AM VERY ANGRY WITH THEM	EMOTION/-VE OTHERS	1	I HATE BEING BULLIED**	EMOTION NON-DIRECTIONAL	1
I'M GOING TO PUNCH	BEHAVIOUR/-VE OTHERS	3	I'LL GO AND FIND SOMEONE ELSE TO PLAY WITH	BEHAVIOUR/+VE SELF	1
I'LL HAVE A FIGHT WITH THEM	BEHAVIOUR/-VE OTHERS	3	I THOUGHT THEY WERE MY FRIENDS	COGNITION/-VE OTHERS	1
WHY DO THEY ALWAYS BULLY ME ?**	COGNITION/-VE SELF	2	I'LL GO AND TELL THE TEACHER	BEHAVIOUR/+VE SELF	1
THEY DON'T WANT TO PLAY WITH A SWOT	COGNITION/-VE SELF	3	NO-ONE LIKES ME	COGNITION/-VE SELF	3
WHY DO I HAVE TO WEAR OLD CLOTHES?	COGNTION/-VE SELF	3	I'LL SAY "GET LOST AND GO AND PICK ON SOMEONE ELSE"	BEHAVIOUR/+VE SELF	1

*- APPROPRIATENESS SCALE :- 1 - APPROPRIATE FOR THE SITUATION
2- SLIGHTLY INAPPROPRIATE
3 - INAPPROPRIATE

** RESPONSES WHICH WERE DIFFICULT TO CATEGORISE

SITUATION 9 - THWARTED (HOME)

EXPERIMENTAL GROUP			CONTROL GROUP		
RESPONSE	**CAT.**	**APP.***	**RESPONSE**	**CAT.**	**APP.***
I AM ANNOYED WITH MUM	EMOTION/-VE OTHERS	1	I AM ANNOYED WITH OTHERS	EMOTION/-VE	1
I FEEL LIKE SNATCHING THE GAME BACK	BEHAVIOUR/-VE OTHERS	3	MY MUM SHOULD LET ME FINISH THE GAME**	COGNITION/-VE OTHERS	2
IT'S MY FAULT-I SHOULDN'T HAVE BEEN PLAYING	COGNTION/-VE SELF	2	I FEEL GUILTY	EMOTION/-VE SELF	2
I WILL PROMISE TO DO MY HOMEWORK	BEHAVIOR/+VE SELF	1	I SHOULD GET ON WITH MY HOMEWORK	COGNITION NON-DIRECTIONAL	1
I AM ANGRY	EMOTION NON-DIRECTIONAL	2	I'VE BEEN CAUGHT OUT	COGNITION NON-DIRECTIONAL	1
EVERYONE ELSE'S MOTHER WOULD LET THEM **	COGNITION/-VE SELF	3	MY MUM HAS SPOILT MY GAME	COGNITION/-VE OTHERS	2

*- APPROPRIATENESS SCALE :- 1 - APPROPRIATE FOR THE SITUATION
2- SLIGHTLY INAPPROPRIATE
3 - INAPPROPRIATE

** RESPONSES WHICH WERE DIFFICULT TO CATEGORISE

SITUATION 10 - AMBIGUOUS SITUATION

EXPERIMENTAL GROUP			CONTROL GROUP		
RESPONSE	**CAT.**	**APP.***	**RESPONSE**	**CAT.**	**APP.***
I AM ANNOYED WITH THAT BOY	EMOTION / -VE OTHERS	2	THAT PERSON SHOULD HAVE STOPPED	COGNITION/ NON-DIRECTIONAL	2
I WOULD PUSH HIM BACK	BEHAVIOUR/-VE OTHERS	3	THEY SHOULD HAVE WATCHED WHERE GOING	COGNITION/-VE OTHERS	1
I WANT HIM TO HELP PICK THE BOOKS UP**	COGNITION /-VE OTHERS	2	THEY COULD HAVE SAID "ARE YOU ALRIGHT?"	COGNITION/-VE OTHERS	1
I WOULD WIPE THE SMILE OFF HIS FACE	BEHAVIOUR/-VE OTHERS	3	I'M MAD WITH OTHER BOY	EMOTION/ -VE OTHERS	3
WHY DOES THIS ALWAYS HAPPEN TO ME	COGNITION/-VE SELF	3	I'M JUST LEFT TO DO THIS MYSELF	COGNITION/ NON-DIRECTIONAL	1
I'LL JUST PICK THE BOOKS UP - HE DID APOLOGISE	COGNITION/ NON-DIRECTIONAL	1	HE SHOULD HAVE GIVEN A PROPER APOLOGY	COGNITION/ -VE OTHERS	2

*- APPROPRIATENESS SCALE :- 1 - APPROPRIATE FOR THE SITUATION
2- SLIGHTLY INAPPROPRIATE
3 - INAPPROPRIATE

** RESPONSES WHICH WERE DIFFICULT TO CATEGORISE